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Manufacturers Record

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BALTIMORE, DECEMBER 19, 1912.

EDUCATING THE YOUNG.

From the Cleburne Public Schools of
Cleburne, Tex., through R. G. Hall,
superintendent, the MANUFACTURERS
RECORD has a letter which says:

Enclosed find check for \$5, for which please
send me the MANUFACTURERS RECORD and
three copies of your new book "The South:
The Nation's Greatest Asset." Kindly send
the paper to the High School Library, Cle-
burne, Texas.

Superintendent Hall is making a wise
move in planning to have the teachers
and the scholars at Cleburne acquainted
with the resources and the growth of
their own country. His example should
be followed by the schools of every
county and town in the South.

REVEALING TEXAS POSSIBILITIES.

This year's award of \$10,000 by the
Texas Industrial Congress in prizes for
crop-growing contests emphasizes the
practical work which that organization
is doing in demonstration of the farm
potentialities of the State. On another
page of this issue are published some
details of the contest which show that
on 10 acres of land one man raised 36.48
tons of cowpeas at a net profit of
\$517.10; 297.82 bushels of milo maize
at a net profit of \$73.77; 3.54 bales of
cotton, or 1.41 bales to the acre, at a
net profit of \$123.63; 186.53 bushels of
corn at a net profit of \$191.12—a net
profit on the 10 acres of \$905.62; that
one boy raised 167.5 bushels of corn on
one acre of land at a profit of \$95.35;
that one boy raised 2.01 bales of cotton
on an acre of land at a net profit of
\$91.68; that one man raised without
irrigation on two acres of land 318.8
bushels of kaffir corn at a net profit of
\$98.10, and that one man raised on two

acres of land by irrigation 337.3 bush-
els. Comparison of these crops with
the average yields per acre in the State
reveal the tremendous opportunities in
scientific farming, which is common-
sense farming, not only in Texas, but
in the whole South, and, indeed, in the
whole country. The facts prove that
there need be no anxiety about the fu-
ture food supply of the country, pro-
vided farmers adopt the policy of sci-
entific agriculture, which is nothing more
than the application of gumption of the
results of experience, the fertilizing of
the soil with brains.

ONLY ONE CLOUD—POLITICS— ON THE BUSINESS HORIZON.

This promises to be a record-breaking
year. The farmers of the country have
broken the record in the value of their
crops, as they have broken the record
in the output of corn and oats and a
number of other things. The value of
the year's outturn by the farmers far
exceeds the highest preceding aggre-
gate. Secretary Wilson of the Agricul-
tural Department puts his estimate at
\$9,532,000,000. Though we believe that
his figures are too high, and that sub-
sequent investigations will probably re-
duce the amount to about \$9,000,000-
000, yet even then the total will be
much the highest in the history of the
country.

The production of pig-iron is running
at the largest rate we have ever had.
We are now producing at the rate of
nearly one-half of the world's output
of iron.

The output of coal is greater than
ever before, taxing the facilities of the
railroads and restricted in many places
by the inability of the roads to provide
rolling stock.

Cement is being produced to a larger
extent than in any preceding year, and
the demand is fully taxing the output
of all the cement plants in operation.
Thus the great fundamental interests
of agriculture, iron, steel, coal and ce-
ment are all breaking all previous re-
cords of production.

In lumber and cotton goods there is
a steady improvement, an increasing
demand, with advancing prices, which
may place these industries on a basis
like the others to break the records of
the past as to output and prosperity.
With the world's growing demand for
cotton goods, the raw staple has con-
tinued to advance in the face of a good
yield this year, following a record-
breaking crop of last year, and so for
its cotton and cottonseed the South will
this year get about \$1,000,000,000, or
more than twice the world's gold output
for the same period.

These are but a few of the things
which tell of the widespread activity
throughout the land, of increasing busi-
ness and increasing prosperity among
the farmers, among the manufacturers
and among the laborers. The demand
for labor itself exceeds the supply, and
thousands of men are needed in many

sections where industrial interests are
hampered by the lack of labor.

We are fast outgrowing in our vol-
ume of traffic our railroad facilities,
and whenever the time comes that rail-
roads can undertake the expansion of
their lines in keeping with the needs of
the country we will enter upon one of
the greatest railroad-building periods
that we have ever known.

It is indeed fortunate that under
these conditions, which indicate some-
thing of present prosperity and give
promise of prosperity ahead, there is
world-wide activity in business. The
iron and steel interests of Europe are
crowded to their capacity, and Ameri-
can iron and steel are finding foreign
markets in many directions, largely, at
the moment, because of the inability of
European producers to compete with
them. With conditions for business so
sound as these, we ought to have a long
period of activity and prosperity, of
great advance in railroad building, of
enlargement in the output of furnaces
and factories, of cotton mills and lum-
ber mills, and great growth of diversi-
fied interests based on the utilization of
waste products, signs of which are seen
in every direction now. And unless the
fear of Congress upsets all of these
happy conditions, the country may look
forward to a period of abounding pros-
perity.

It is a lamentable fact that there is
always a fear of Congress, regardless
of the party in control, for our law-
makers of recent years, instead of re-
pealing about three-fourths of all the
legislation of the last 10 or 15 years—
and most of it could be repealed to the
betterment of the whole country, and
to all interests of the country, and to
all the people of the country—they con-
tinue to create new laws the very mean-
ing of which they do not themselves un-
derstand, thus resulting in constant lit-
igation and the uncertainty under
which thousands of people labor when
they do not know whether they are
breaking laws or complying with laws.
Outside of this fear of legislation, all
else is brilliant with promise of pro-
gress and prosperity.

LIFE INSURANCE PROGRESS IN THE SOUTH.

Throughout the South there is
marked growth in the development of
home insurance interests—life, fire and
accident. The most sacred of all busi-
ness obligations are those of insurance
companies. Upon the fulfillment of
their promises to the insured depends
the welfare, in case of life insurance,
of the loved ones who are left behind
to meet the problems of life without
the aid of the husband and the father.
It is incumbent upon the South to safe-
guard to the very utmost extent all in-
surance matters. Around insurance in-
terests should be thrown restrictions
which will make the insured absolutely
safe. This is of far greater importance

even than to safeguard the banking
business. The latter is of trifling im-
portance in this respect as compared
with insurance. So strong are the rea-
sons for developing home insurance
companies in the South that there is
always danger in writing strongly of
such a matter without giving unscrupu-
lous promoters arguments for the or-
ganization of insurance companies
without adequate capital or adequately
safeguarding the insured. The insur-
ance business is in its infancy. Men
are only beginning to fully realize
the value and importance of insur-
ance; only beginning to understand
that no man has a right to leave
his family unprotected by insurance.
It is especially true that in the South
the insurance business is in its infancy.
This section has sent hundreds of mil-
lions of dollars to the insurance com-
panies of the North and West in the
past largely because there were but few
strong Southern companies equal to the
situation. The drain of insurance pre-
miums upon the South has been very
heavy. It is estimated that it has taken
out of the South since the war \$700,-
000,000 or \$800,000,000; but this drain,
vast as it is, has been better for the
South than for this section to have
done without insurance, or even put its
faith in unsafe companies simply be-
cause they were home companies. For-
tunately, of recent years there has been
a very marked growth of home com-
panies, financially strong and managed
by men of the highest integrity. It is
incumbent upon these companies, and
upon the leading men in every commu-
nity where insurance companies exist,
to throw around their operations every
safeguard that can be devised. When
insurance companies are made so safe
that their responsibility to the insured
cannot be jeopardized, then there
will naturally follow a development
throughout the South of home insur-
ance rivaling that which has made the
insurance companies of the West and
the East such tremendous factors in
national financial operations. The
South needs to develop its insurance
interests to the utmost degree that they
can be handled with safety; it needs to
retain at home the hundreds of millions
that it now sends elsewhere for insur-
ance; it needs to make its safeguard so
sure that every policyholder will be just
as safe as though he held Government
bonds. With the development of the
insurance system on such a basis as
this there will be created throughout
the South great financial centers based
largely on the millions and the hun-
dreds of millions that will be gathered
together by insurance companies. The
field is an interesting one. It appeals
to the imagination as to the possibili-
ties of its growth, as to the reasons
why men should carry larger insurance
than the great majority have ever con-
sidered, and as to the power for good
which would be created by the building
up throughout the South of such great

financial influences as have been developed in other sections by the advancement of insurance interests. The field is almost limitless. The opportunity for well-managed, safeguarded insurance companies in the South is most inviting, and the men who are building up strong insurance companies are doing a great work for the betterment of mankind while advancing the material interests of their communities. But let these men make sure that no fake companies are permitted to exist anywhere in the South. Let them make sure that safety is the first consideration, and that around the insurance business shall be thrown every protection that the wisest men can provide.

THE GREATNESS OF A SMALL COLLEGE.

At a meeting of the trustees of this Academy, held on the 10th instant, Captain Phil Holcombe was elected steward. The steward is appointed to furnish wholesome diet to the students, one half of the meat to be fresh and one half of the bread to be made of the fine flour of wheat. And he obliges himself to furnish servants to keep their rooms clean and in good order. * * * The students will be obliged to provide their own beds, or to pay a moderate hire for them, and to buy their own candles, and washing, which they may do at a small expense. For some years they will be permitted to take their wood off the land belonging to the Academy gratis.

So runs one of the earliest notices bearing upon the interesting history of the College of Hampden-Sidney, Virginia. It is dated November 23, 1775, and in some respects reflects the plain living and high thinking which have characterized that great institution and have been responsible for the valuable services rendered Commonwealth and Church by a long line of distinguished alumni. The notice is reproduced in a scholarly and valuable presentation by Alfred J. Morrison of a mass of interesting material from the archives of the college, condensed excerpts from the minutes of the meetings of the Board of Trustees.* These minutes, as thus presented, throw a flood of light upon the life of the college born of one revolution and nearly killed in a second revolution, but of such natural resiliency that the faith and the works of its founders and of the really great men who, in spite of its vicissitudes, kept alive in successive generations the human ideals, recalled in the names of John Hampden and Algernon Sidney, are today influential in making the institution one of greater promise than ever before.

Not the least significant feature of the history of Hampden-Sidney, which may be regarded as one of the many children of Princeton, is the fact that of the 156 trustees appointed in its first century, 92 are known to have been graduates of colleges—49 of Hampden-Sidney, 17 of Princeton, 9 of Washington and Lee, 3 of Yale, 3 of the University of Virginia, 2 of William and Mary, 2 of Center and 1 each of Union, Dartmouth, Jefferson, Amherst, South Hanover, University of North Carolina and Marion, besides such national figures as Patrick Henry, President Madison, William S. Archer and William Wirt Henry. Their names and their services to State and Nation are recalled as one reads this calendar, which is illuminated by copious biographical and historical notes collected from many sources by Mr. Morrison.

*The College of Hampden-Sidney, Calendar of Board Minutes, 1776-1876. By Alfred J. Morrison. The Hermitage Press, Richmond, Va. Price \$1.50.

Hampden-Sidney is one of the so-called small colleges of the country which has survived from colonial days. Its smallness in the past consisted only in the fewness of its buildings and in the number of its students. Its spirit has always been large. The fact that it is still a vigorous factor in American education emphasizes the conviction that, in the midst of the grasping from any quarter of means to provide magnificent buildings, elaborate equipment and thousands of students instead of hundreds; in this day of specialization, which generally implies concentration and consequent narrowness, the small college has a great part to play, if only to maintain the atmosphere of general culture and to strengthen American integrity against the insidious influences in so-called education attempting to debauch the universities and colleges by setting up money as the measure of success and influence.

FAITH SHOULD BE BACKED BY WORKS.

People who desire the development of their own section must themselves show their faith in it before they can expect the outside world to have faith in what they claim. It was the faith of the pioneers in coal and iron in Alabama, men who staked their all of judgment and of money in the early days, which commanded the world's attention and brought outside capital and outside people into co-operative work which has resulted in making the Birmingham of today.

It was the faith of Richmond people in the possibilities of their city that has made Richmond one of the most aggressive financial centers of the South, increasing so rapidly in wealth that a visitor recently jocularly said that he found so much money in Richmond that wherever he entered a house a pile of money had to be shoved out of the way in order to open the door.

It was faith in their city and in themselves that has made Atlanta what it is—the marvel of the day in city building and city activities.

It was faith in their own State that made the people of Florida invest their money and their energy in its development. The faith of these people and of hundreds of others who could be mentioned, faith backed by their works and expressed through their pocket-books, has made possible much of the material advance of the South.

The business men and the financial leaders of every town and city and every section have a certain responsibility to the community as well as to their stockholders. As leaders in development, as exponents of its best business interests, they are under moral obligation to do whatever may be in their power to advance the welfare of their community by co-operating in its development and investing their time and their money in the utilization of the opportunities to be found at home.

A discussion on this line of thought is now commanding the attention of New Orleans people. The men of that city who have seen the possibilities of reclaiming the overflowed lands of the State, of draining the overflowed and swamp lands around New Orleans, to the betterment of its health conditions and on a money-making basis—for when drained these lands become enormously productive—have been urging with considerable vigor upon the banks of New Orleans that they should take the lead in helping to finance well-secured bonds on well-engineered reclama-

tion undertakings. This has been advocated on the ground that these investments would be safe; that this reclamation work would benefit the city and State, and that investments by local financial institutions in securities of this kind would immediately draw larger investments in reclamation bonds from the financial centers of the country. The position is taken, and very justly it would seem, that New Orleans investors ought, in behalf of the welfare of their city and State, to show their interest in a work of such far-reaching magnitude by faith founded on knowledge and by faith backed by works in the shape of investments. An able and distinguished minister, with a homely wit, in examining a candidate for admission into his church, once said: "My brother, you think you have been converted, but do you think your pocket-book has been converted? For I have no faith in any conversion that does not include the pocket-book." The moral applies with equal force to material affairs. Of what avail is the enthusiastic commendation of the resources of any given section or the advantages of any community by the men of that community, men who have wealth, unless their commendation goes deep enough to include their pocket-book? The lesson can be studied to advantage not alone by the bankers of New Orleans, but by people of all parts of the South.

"ONE GREAT NATION OF AMERICAN CITIZENS."

A year ago Mr. A. C. Burnett of Cadiz, Ky., with a view to furnishing some information about the South to a friend of his in the West, subscribed to the MANUFACTURERS RECORD for one year for Mr. B. W. Graham, attorney-at-law at Portland, Ore., without, however, informing Mr. Graham to whom he was indebted for the kindness. Mr. Burnett now sends us a letter from Mr. Graham, in which the latter says:

I am just reminded by the MANUFACTURERS RECORD of Baltimore, Md., that my subscription, which was authorized by you last year, has expired. I want to take this occasion for thanking you most kindly for sending me this publication during the past year. I have taken great interest in reading of the wonderful South and much pride in its development. This is certainly a wonderful country, and the best part of it is that there is no South, no North, no East, no West, but that we are just one great nation of American citizens, ready to fight for the old flag and the right. It is too bad that some of those who formerly wore the blue and the gray are not here today to witness the undoubted friendship that once more binds all our people in one great brotherhood. I believe I am safe in saying that we of the North are today just as proud of the noble achievements of those who formerly were opposed to us as are you of the South. Old animosities are entirely forgotten, and all the people are now bound together in a common cause.

In sending a Christmas present of a year's subscription to the MANUFACTURERS RECORD to his friend in Portland Mr. Burnett did him a favor, for, as stated, he has greatly enjoyed reading about the South; and he did the South a service, for he has broadened the knowledge of his Pacific Coast friend as to what the South is doing, and thus stirred his patriotism, as expressed in his letter. It is a good thing to broaden the acquaintanceship of the whole land with the South, and Southern people and people interested in the South could do no greater service to their country than to follow Mr. Burnett's example. In sending us this letter Mr. Burnett says:

Please note the enclosed letter from a friend of mine who has been receiving the

MANUFACTURERS RECORD for a year without knowing who had sent it to him. He formerly lived at Mariet, Mich., and has never been in the South at all.

SIGNIFICANT JUXTAPOSITION OF STATEMENTS ABOUT IMMIGRATION TO THE SOUTH.

Revealing what may be described as a mental atmosphere about one phase of Southern development is the fortuitous juxtaposition of two statements in last week's issue of the MANUFACTURERS RECORD. In the make-up of the paper two articles were placed on page 55, with no intent save that of giving them the best display possible. In one of them, dealing with the purchase by Chicago capitalists of 45,000 acres of wet lands in Louisiana, ex-Governor J. Y. Sanders was quoted as follows:

The next migration will be to the South. It will come to Louisiana in a regular flood. After all of the Southern country has been filled up the tide will surge over into Mexico, then Central America and afterwards to South America. The tide of migration has reached the Pacific coast, as well as the frost line of the North. There is nowhere else for it to turn except to the South. It will come in an avalanche. Just how soon no man can tell, but it is imminent, and may be on us any day.

In the next column and opposite, and almost line for line with this statement, was one in an article on the potentialities of Southern agriculture by Henry Exall, president of the Texas Industrial Congress, as follows:

There is small need for the South to exert itself in an effort to increase its population, as the pressure from behind of the multitudes that are landing on our shores and the swarms from the hives of the 40,000,000 or 50,000,000 north of us are pushing the vanguard in this direction. The trend is down the Mississippi and toward the Gulf and the South Atlantic. The word has been passed along the line and the multitude is in motion.

The first article reached us on the day before publication; the second had been on hand two or three weeks. As far as we know, the framers of the statements, separated as they are by the distance between New Orleans and Dallas, had no communication on the subject, and there was no understanding that the two statements should appear simultaneously. It was all a chance of the make-up of the week's issue, and the interesting alignment of the two statements was not noticed immediately.

The coincidence can be explained only by the fact that men long active in the work of bringing the South into its own, such as ex-Governor Sanders and Mr. Exall, are in a position to observe the signs of the times. Among those signs is the widespread and practical interest in the rest of the country and abroad in the opportunities offered by the South in agriculture, manufacturing and other lines of material activities. The movement of homeseekers to that section is no new thing; it has been under way in ever-increasing volume for the past 10 or 15 years as a result of the businesslike methods of a number of leading railroad companies, limited only, perhaps, by a failure of the owners of the railroads to comprehend fully the advantages to accrue to them in filling up with thrifty farmers the territory tributary to their lines. The work of immigration and industrial agents of the railroads is having cumulative effect, however. It is being felt in the quarters whence should come the means for intensifying and expanding the work, which, once fully under way as it should be, in order that the present favorable attitude toward the South

may be best availed of, would hasten the day of the expectation of an avalanche of migration to the South.

VIEWS OF A PENNSYLVANIA CONCERN.

W. L. MacGowan, vice-president and general manager of the Florida Company of Warren, Pa., under date of December 5 writes:

We compliment you on what you are doing for the South. We are also glad to endorse what you state about the South being the nation's greatest asset. We look forward with not only hope but a firm expectation that the next ten years will see an enormous growth and increased activity throughout the Southern States. With our large investments in the South we hope to help in this magnificent prospective growth.

It is interesting to note how the title, "The South: The Nation's Greatest Asset," is attracting attention everywhere, and how business men throughout the country who had never given consideration to the South from that point of view are now beginning to express the opinion as stated here by Mr. MacGowan of Pennsylvania that the South is the nation's greatest asset. The very name itself will carry weight and awaken wide discussion throughout the world to the good of the South.

IN VIGOROUS MAJORITY.

Reaching its majority last Thursday, the Savannah Press celebrated by issuing a 100-page paper full of the vigor which has brought it to its present position of usefulness and influence. The special issue contained, in addition to the usual daily features, 10 sections of eight pages or more each, strikingly illustrated and dealing with such features of activities at Savannah as cotton, naval stores, chemicals, fertilizers, banking, insurance, shipping and railroads, real estate and building operations, together with an interesting sketch of the history of the paper itself. The Savannah Press first appeared November 12, 1891, as a four-page paper. It was largely an experiment, as previously afternoon journalism in the city had not been a success. The issue of November 12, 1912, reflecting the growth of the paper, page by page, with the growth of Savannah, is a vindication of the faith of its founders and of the zeal with which that faith has been manifested for 21 years.

FOR PORTSMOUTH.

The Business Men's Association of Portsmouth, Va., has done a splendid piece of work for its community in compiling an industrial census of the city for 1912, showing what the city is doing in many lines and suggesting advantageous opportunities for investment. The association has also compiled a list of industries reached by the Belt Line and its connections, and a directory of truck farmers in the Portsmouth section of Norfolk county.

A \$500,000 Company.

The Gulf Oil & Fertilizer Co., capitalized at \$500,000, has been chartered by F. D. Buck, M. M. Dugan and B. M. Grawl of Wilmington, Del.

Secretary A. P. Foster of the Nashville (Tenn.) Industrial Bureau reports that during the past year new enterprises were established in the city which will employ 3190 persons with an aggregate annual payroll of \$1,996,940.

Mr. W. T. Edwards has been appointed chairman of the committee on cotton-oil business of the Chamber of Commerce of Boykins, Va., of which Mr. N. S. Beaton is secretary.

The Vital Question in the Determination of Birmingham's Iron Ore Resources

By Y. A. DYER of Birmingham.

For the past several weeks the MANUFACTURERS RECORD has given its readers the benefit of much expert knowledge by communications in its columns regarding geologic deductions and actual diamond drill results in the red hematite ore field in Shades Valley on the property owned by Messrs. McDonoughs, Shannon, Porter, Saunders, Aldrich and Towers. In some instances we have seen the result of "Greek meeting Greek" in threshing out certain geologic determinations made in the past. Some of the experts have looked upon the mere drilling of one deep hole in the vicinity in question as in no wise conclusively representing the average favorable conditions shown by the recently extracted core, while others have coupled their geologic knowledge of the section in question with the practical demonstrations made thereon and in the territory drilled back of the outcrop by companies owning property there and ventured the opinion that the heretofore estimated tonnage figures can safely be doubled.

These discussions have all been very interesting to follow, and much concern has been felt in the matter by the observing public, but the vital question to the Birmingham district lies in the fact that as there is assurance of the presence of such a body of high-grade ore, what is going to be done with it? Is it to be opened and developed for immediate advantage to the district by a strong independent merchant ore company, or is it to lie dormant for years as a reserve supply? In the beginning, people in general in the district were prone to look upon the proposition purely as a speculative one. However, the gentlemen fostering the enterprise, being men of long and varied experience in iron making and ore mining in the Birmingham district, were not easily led to relinquish their holdings for a comparatively small consideration to parties who might seek the ore tract for a holding investment, or possibly some large furnace company for an indefinite ore reserve. As an asset to the district, it is believed that this body of ore would best serve the people's interest by being opened up and operated as a "free lance," that is, mined and put on the market as commercial ore to assist and prolong the active life of furnace plants that need outside ore. Looking to this end, on November 26, 1912, R. N. and J. H. McDonough, John J. Shannon, W. A. Porter, Warwick Saunders, W. F. Aldrich and John Towers formally took over the property and today formed the Self-Fluxing Ore & Iron Co., with capital stock of \$1,500,000 paid in, and have engineers in the field preparing to begin development work at an early day in the coming year. The field of operation for a large commercial ore mine of the kind contemplated is wide, and such an enterprise will be of vast value to the district. In the early bodying up of the ore properties in the Birmingham district there was seemingly no attention paid to the formation of a strong company to mine and market ore, but rather the best efforts were turned to the putting up of blast furnaces to smelt the ore, irrespective (as quite a few past results have shown) of the extent of the deposit or its quality, with regard to the operative life of the plant during favor-

able and adverse times. The result has been that throughout the district one can see many idle stacks during even a favorable iron market, and the cause is easily traceable to not only an inadequate ore supply, but the forced use of inferior ore mined at an excessive cost by reason of thin seam and sparse supply.

It is proposed by the parties in question, in opening up the mine, to make adequate provision for a minimum capacity of 2000 tons of ore per day and as much more as is needed from time to time, and to mine and hold as a reserve stock thousands of tons to meet emergencies of their patrons. When asked a few days ago in regard to the probable time it would take to reach the ore by shaft, Mr. R. N. McDonough replied that, according to the log record of the core, it should not take longer than one year's working days to drive the twin slope, and that once they reached the practically level seam of ore, they could drive sufficient entries and open up rooms to bring the output to 1000 tons per day within six months' time.

While in Mr. McDonough's office the writer, in going over various analyses and data, inspected a report on the core log made by a disinterested party who is connected with one of the large iron companies of the district, and was particularly impressed with the ideal roof conditions as shown. The report clearly shows 20 feet of sand rock above the upper bench, with no draw slate between the rock and ore. This is a very important feature in economical and safe mining.

The original analysis of the top bench ore, as determined by one of the most reliable furnace chemists in the district, was also shown the writer, and it is a little higher in metallic iron and lime than analysis given by Mr. Hancock. It is as follows:

	P. Ct.
Metallic Iron.....	39.75
Silica.....	10.06
Alumina.....	3.78
Lime oxide.....	15.20
Phosphorus.....	.33
Manganese.....	.19

It will be recalled that in giving previous analyses of the ore in the upper bench no mention has been made as to the showing of the lower bench. Recently a chemical analysis was made of the core of the

lower bench purely as a matter of information, and the result was surprising to the owners. In this connection it is important to bear in mind that on the outcrop the lower bench ore is not taken into account as being available at the present time. The lower bench of 9 feet 8 inches, including the 4 inches of slate parting between the benches, analyzed by the foot, showed an average of—

	P. Ct.
Metallic iron.....	36.82
Silica.....	14.30
Alumina.....	3.11
Lime oxide.....	13.65
Phosphorus.....	.32
Manganese.....	.20

Another interesting feature is the analysis furnished representing the average of both benches of 19 feet 2 inches, including all partings, which is as follows:

	P. Ct.
Metallic Iron.....	38.14
Silica.....	12.22
Alumina.....	3.05
Lime oxide.....	13.81
Phosphorus.....	.32
Manganese.....	.20

Taking as a basis 9 feet of ore, the usual method of determining the tons of ore to the acre on the outcrop upper seam is figured between 38,000 and 40,000 tons to the acre. There are 1335 acres in the tract in question, which would total between 50,000,000 and 60,000,000 tons in the 9-foot 6-inch upper bench of high-grade ore, and between 55,000,000 and 65,000,000 of lower bench product, 9 feet 8 inches. From these figures it is not hard to estimate the probable life of an operating ore company, at, say, 700,000 tons per annum.

From this territory there are 27 furnace stacks that can be reached within the 12½-cent ton freight rate; one stack within 20-cent haul, and 10 stacks within 35-cent haul. Of these stacks, 12 could use the ore most advantageously. The companies operating the remaining 26 stacks own valuable mines in the self-fluxing ore territory, as well as control an immense acreage extending from the outcrop far back into Shades Valley. However, the companies who own property in this self-fluxing ore territory are often, if not at all times, in the market for good ore on a reasonable basis.

With the assurance of ample capital with which to equip and operate an ore-mining company on the scale proposed, the Birmingham district is to be congratulated not only from the standpoint of the good such an operation will accomplish in the way of furnishing labor for hundreds of men, but the relief that it will bring to the many furnace companies that need the ore in order to make them a live reality in the future.

South at Chicago Land Show

By JAMES M. CLEARY.

Never before has there been such a comprehensive representation of the South's agricultural opportunities at any exposition as was to be found at the United States Land Show in Chicago this year. All the Southern States from Texas to the Atlantic were represented, including West Virginia, which has the unique distinction of being classed as the most Northern of Southern States and the most Southern of Northern States.

West Virginia's display was tremendous and imposing. It occupied 1000 square feet in the Coliseum, extending in a strip from the center of the building to the north wall. The southern half of this great bank of exhibits was made up of apples; seven tons of them; beautiful and varied in color and delicious as to flavor. Visitors had ample opportunity to learn the quality of West Virginia apples, as

one in every twenty received a coupon entitling him to a choice specimen, and thousands of additional apples were distributed free on "West Virginia Day," November 30, and on the last day of the show. The other half of the West Virginia exhibit consisted of a high bank of potatoes of the finest quality, cases containing grains and grasses native to the State, and of a series of glass cylinders several feet high, in which all types of West Virginia soil might be seen in cross-section. This was one of the most instructive and well-thought-out exhibits in the Coliseum.

The mining industry of the State was represented by a mammoth block of coal, 14,000 pounds in weight, which was brought to its resting place at the corner of the West Virginia section with great difficulty.

A novel feature of the West Virginia exhibit consisted of several cages of chickens—the only ones in the building—which contributed greatly to the gaiety of the show by laying eggs regularly and cackling loudly.

The West Virginia exhibit was made by the State Board of Trade of Wheeling with funds subscribed by public-spirited citizens throughout the State. It was in charge of Roy B. Naylor, secretary of the State Board of Trade; Theo. J. Imbach, representing the Baltimore & Ohio Railroad, and J. H. Stewart, agricultural commissioner of the Baltimore & Ohio.

Opposite the West Virginia exhibit was that of Alabama. This State occupied a full section of space, the various booths having been taken by the departments of agriculture and of immigration of the State, the Chamber of Commerce and Business League of Mobile, the Business Men's League of Montgomery, the Chamber of Commerce of Birmingham and a land company of Irvington.

Although they occupied but a part of this space, the representatives of Mobile almost dominated the Alabama section. Their exhibit was generally considered the "livest" in the Coliseum. They brought with them to Chicago carloads of products for free distribution, and distributed them in such a spectacular manner that the police had to be called upon frequently to clear the aisles in their vicinity.

One of the things which caused the congestion of the aisles was a cane sugar mill in operation. The Mobile booth was practically made of sugar-cane, with the result that visitors to the show began to tear it down and eat it. Instead of discouraging the consumption of sugar-cane by the Chicago populace, however, the Mobile representatives shipped in enough cane to give a stick to everyone who visited the show.

They also redeemed every day of the show three admission ticket coupons. A coupon, bearing some number from one to twenty was attached to every ticket sold, and could be redeemed, according to the number for a product of some section of the country represented at the show. Coupon No. 19 called for a Satsuma orange at the Mobile booth, and several hundred of these delicious oranges were given out every day, creating a considerable demand for them in Chicago. Coupon No. 14 called for a can of cane syrup made in Mobile county, and coupon No. 3 called for a bag of Alabama yams.

"Mammies" cooked each day, before the eyes of the visitors, some Southern delicacy made from yams and distributed it with a small cook book free to everyone who asked. Yam pies, yam pone, yam custard and candied yams were some of the dishes so distributed. Grocers all over Chicago have been tormented ever since with demands from their customers for Mobile county yams. On Alabama Day the bags of yams were distributed not only to holders of coupon No. 3, but to every one of the thousands of people who entered the Coliseum, and the cane syrup made in the mill in the booth was boiled down and converted into candy in an old-fashioned candy pull. The Mobile exhibit was in charge of Geo. A. Maloney, special agent of the United States Department of Agriculture, and Geo. G. Card of the Mobile Chamber of Commerce, assisted by H. P. Pelton, champion farmer of Southern Alabama.

Lee Cowart, commissioner of immigration of Alabama, had charge of the Government exhibit, and featured each day of the show a bale of cotton. This was such a novelty to Northerners that many attempts were made to buy it and big premiums offered over its actual value.

F. P. Chaffee, of the farm management

committee of the Chamber of Commerce of Birmingham, had charge of the exhibit from Jefferson county, Alabama, which demonstrated by the showing of actual crops the great variety of produce which can be raised in the immediate vicinity of this great industrial metropolis.

An interesting display of agricultural products from the vicinity of Montgomery, Ala., was collected by Bruce Kennedy, secretary of the Montgomery Business Men's League, who was also influential in bringing about the participation of the other sections represented. It was in charge of Jesse M. Jones and F. J. Cramton.

The Alabama and South Carolina exhibits were immediately to the left and right of the main entrance of the Coliseum, and formed a gateway through which every visitor had to pass to see the show. The South Carolina display occupied but a small space, but every inch of that space was filled with exhibits genuinely interesting and educational.

Col. E. J. Watson, commissioner of agriculture, commerce and industry of South Carolina, was in charge, and he brought with him exhibits which formed a veritable panorama of the opportunities and resources of his Commonwealth. Cotton was shown from the seed to the finished cloth. A feminine figure made of tobacco represented "Lady Nicotine," and corn was given considerable prominence.

The claims of South Carolina as a corn-growing State were further upheld by the presence of Jerry Moore in the uniform of Clemson Agricultural College, where he is now a student. Jerry is the boy who won the title "champion corn grower of the world" at the age of 14 years by growing on a single measured acre of ground in South Carolina 228½ bushels of corn.

The Texas Gulf coast was represented by a display under the auspices of the Houston Chamber of Commerce. This display rivaled the Mobile exhibit in its power to attract the multitudes of people and send them away happy, for there was kept in constant operation a rice kitchen, where this great money crop of the Gulf coast was served free to everyone with gravy. The gravy was made from a different kind of meat every day, chicken being the Sunday specialty. Adolph Boldt, secretary of the Houston Chamber of Commerce, was present every day of the show and delivered a series of illuminated lectures descriptive of the Gulf coast.

Louisiana had a splendid display of its resources, stretching in an unbroken line from the South lecture hall to the center of the Coliseum. Corn, rice and cotton were featured as great staple crops, and a most convincing appeal was made to Illinois farmers to transfer their allegiance to the sunny South. Louisiana was particularly strong in its staff of lecturers, and delivered at least two talks every day to big audiences. The exhibit was financed by the Louisiana Agricultural Publicity Commission, appointed for that purpose by Governor Luther Hall and managed by A. R. Barracks, secretary of the Board of Trade of Baton Rouge. He was ably assisted in the raising of funds, gathering of exhibits and management during the show by Commissioner of Agriculture E. O. Bruner and Commissioner of Immigration Justin F. Denechaud.

Mississippi was represented by a display gathered by Commissioner of Agriculture Blakeslee for the Mississippi Central Railroad. It was in charge of E. A. Cummings & Co. of Chicago.

Georgia's representation was confined to pecan companies from Valdosta and Albany districts. The display from Valdosta had the sanction of the president of

the Board of Trade of that place, and included not only pecans, but various products of the district.

Florida was one of the few States in the Union represented by land companies rather than communities. The land show management spent more money and energy and time in endeavoring to interest Florida communities in the show than was expended in any other State, but it was unable to overcome railroad opposition. The companies from North Tampa, Pensacola and Monticello, which exhibited, maintained displays that were a credit to the State, but the benefits, of course, will be concentrated in the treasuries of these companies and not generally distributed, as is the case where community exhibits are made.

Birmingham Iron Market.

[Special Cor. Manufacturers Record.]

Birmingham, Ala., December 16.

The trading in the local pig-iron market was even lighter in the past week than in the week previous, with decidedly less interest manifested by the trade generally. The forwardings from furnace operations during the week were about equal to the output for that time, and so far no requests that shipments be withheld have been reported. There has been, however, some resale iron offered in certain sections of the trade, and in other directions a disposition to cancel the tonnage due on contracts at the higher prices has been evinced. These conditions just referred to, together with reports from the North and East to the effect that certain brands of Southern iron were being offered in such territory at lower figures than the Birmingham basis, have, of course, not strengthened the situation, and it is probable that with the equipment available round tonnages for prompt delivery can be had at lower figures than were obtainable at the time of last report. Market quotations have not been changed in any case. For the remainder of the year, and through the first quarter, a basis of \$14.50 per ton for No. 2 foundry, with a differential of 25 cents per ton for the grades below No. 3 foundry, is being adhered to, while a basis of \$15 per ton for No. 2 foundry, with the usual differential of 50 cents per ton for the lower grades, is quoted for the second quarter. This last figure is apparently not attractive to the buying interests, and, in fact, it is hardly believed that the buying would be stimulated by a price of \$14.50 per ton to cover the entire first half. As is usually the case at this season of the year, the consumers are more interested in closing the year's business than in providing additional raw material for future requirement, which is, of course, taken into consideration in making quotations. The sales made in the past week covered actual requirements, and were closed at prices ranging from \$14.25 to \$14.75 per ton at Birmingham for No. 2 foundry. A single lot of No. 2 foundry for January delivery was sold at \$14.50 per ton at Birmingham. The scarcity of all low grades is still complained of, although the tonnage required in practically all cases is against old contracts rather than recent transactions. The aggregate tonnage of all grades involved by the inquiry pending just at this time is small comparatively, and covers a wide range of territory.

The market for warm blast charcoal iron is very firm, and for the tonnage recently sold a higher price has been received. The output of this particular grade is still represented by two active stacks only, while the demand from all quarters has been larger in the past few months than at any time during two years previous.

The output of basic iron is still being consumed at local plants, and a criterion of values is not afforded. It is hardly believed that operations would be changed to produce any tonnage of this grade at a lower figure than is being asked for No. 2 foundry.

The several grades produced locally are quoted as follows per gross ton f. o. b. cars Birmingham district furnaces, viz., for delivery in the first quarter: No. 1 foundry, \$14.50 to \$15; No. 2 foundry, \$14 to \$14.50; No. 3 foundry, \$13.75 to \$14.25; No. 4 foundry, \$13.50 to \$14; gray forge, \$13.25 to \$13.75; mottled, \$13.25 to \$13.75; standard basic, \$14 to \$14.50.

Warm blast charcoal iron for delivery in the first half, \$24.50 to \$25.

No change is reported in the market for finished material, and the several mills continue to operate to capacity. Within the next 10 days practically all departments of the Alabama City and the Bessemer mills will be closed down, but the Ensley mill will operate more or less all through the holidays. In line with other markets, recent specifications for the several finished products are lighter than formerly, but it is not likely that order-books will be reduced satisfactorily before the buying that usually results immediately after the first of the year. In this connection the proposed sale of the Southern Iron & Steel Co. properties is being awaited with interest.

The steam and domestic coal situation could not be more unsatisfactory, and, owing to the likelihood of a longer period of suspension at the several operations than usual for the holidays, the matter of supplying the actual requirement within the next few weeks is quite a serious one. The output of steam coal for the past week or 10 days has hardly been equal to the railroad requirement, while domestic stocks have been practically depleted at many points. By reason of the burning of a washer, the output from one of the largest steam coal operations in the district will necessarily be curtailed for a month or six weeks, but the aggregate production will not be affected, owing to the lack of sufficient cars to take care of the several operations. In the coke market the largest transaction recently involved some 40,000 tons for shipment to Monterey, Mexico. This tonnage will be delivered by the Pratt Consolidated Company, and shipment will be made at about the rate of 6000 tons per month.

Chemical and Color Mines.

The Hiwassee Chemical and Color Mines, Hiwassee, Va., have completed plant recently under construction. This company will develop 108 acres of land and have a daily output of 30 tons of earth colors, ochers, etc., shipped in dry powder. It has erected machine, office and laboratory buildings and ore bins, planning to employ about 30 men to begin with. Dr. Rudolph Pabst is manager at Hiwassee. Other officers are: President, Herbert L. Baker; secretary, George E. Lester; treasurer, Edward C. Beck; main office address, 166 Devonshire street, Boston.

Barges for the Missouri River.

A report from Kansas City says that the Kansas City-Missouri River Navigation Co. has ordered three steel barges from the American Bridge Co. at Ambridge, Pa., and that at the annual meeting next month authority will be requested for the construction of a steel towboat. The company now has five barges, two towboats, a packet-boat and a dispatch-boat. The new barges and the towboat are expected to cost about \$125,000.

IN ONE OF THE APPLE REGIONS OF VIRGINIA.



FOUR HUNDRED ACRES OF LAND IN SEVEN APPLE ORCHARDS NEAR WAYNESBORO, VA.

[Special Correspondence Manufacturers Record.]

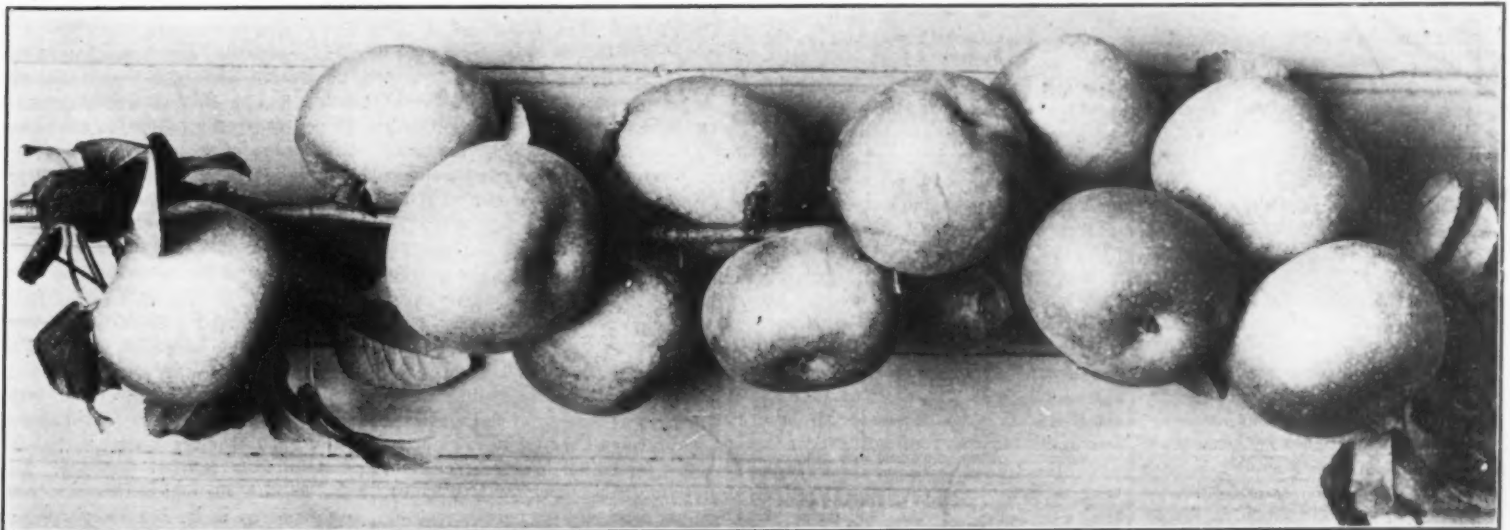
Waynesboro, Va., December 12.

Waynesboro is the center of an important manufacturing district, with 20 prosperous manufacturing plants grouped along the two railroads which cross at this point. Five new industries have located here within the past year, viz., a large planing mill, an oak flooring factory, an evaporator for drying apples, a creamery operated by farmers on the co-operative plan, and a cannery for preserving fruits, tomatoes and other vegetables grown mostly between the young apple trees in the extensive commercial apple orchards which surround this town. These apple orchards range in size from five acres to a commercial orchard of 350 acres operated by a corporation composed of experienced apple growers who came here from the Pacific Coast. The big red apple grows to perfection on high land, on land with good surface and under drainage, and on slopes that retard the bloom and thus prevent frost injury. Such land is found in this region. Two railroads give a freight rate of 8½ cents per box on apples to New York city, as against a freight rate of 60 cents per box from Oregon and Northwestern regions. This one item of freight represents a yearly

saving of \$200 an acre to Virginia apple growers. Here are to be found splendid trees.

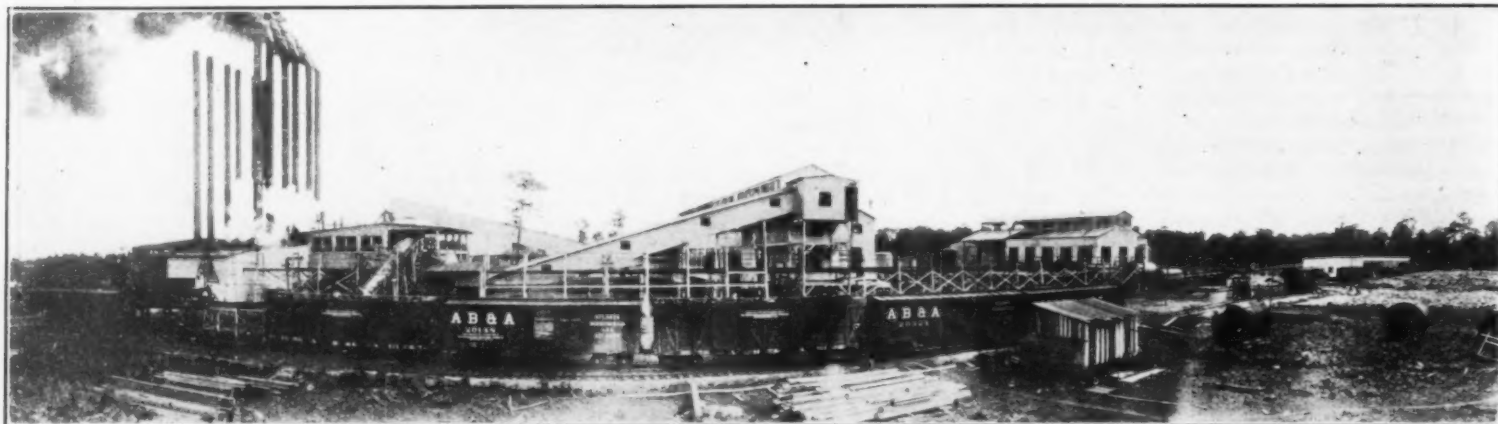
The manufacturers in Waynesboro and Basic City comprise, in addition to those already mentioned, two stove works, four furniture factories, two tanning extract works, three flour mills, two barrel factories, a cider and vinegar plant, a hydraulic-ram works that ships rams to all parts of the civilized world, and a brick and tile plant. These plants are running full time, and some of them have orders ahead for a year. With two railroads crossing at this point, both reaching the great coal fields of West Virginia, and low freight rates to the large distributing and consuming centers, with the advantages of low cost of living, the healthfulness of this section, manufacturing interests have ideal conditions for development. An effort is being made to establish a Holland colony near Waynesboro, and two families have recently located here and purchased 100 acres of fruit land, which will be cleared this winter and planted to commercial apple growing in the spring under the management of a horticulturist who has had many years of experience in fruit growing in Holland. The accompanying illustrations give some idea of apple growing in this section, and how prolific the trees are.

C. F. DRAKE.



A LIMB FROM ONE OF THE APPLE TREES IN A WAYNESBORO ORCHARD.

EXTRACTING NAVAL STORES FROM STUMPS AND OTHER PINE WASTES.



The plant of the Yaryan Naval Stores Co. at Brunswick, Ga., includes the immense factory at Brunswick, which represents an investment of \$720,000, with a payroll exceeding \$600,000 distributed among 1700 employees, 500 immediately at the plant at Brunswick and 1200 in the back country adjacent to Brunswick.

The processes of the Yaryan company are secret and jealously guarded, but the principle involved is simply that of successfully extracting resin and turpentine from the dead and fallen pine timbers and from the old pine stumps which are blown up with dynamite, shipped to the factory to have their wealth extracted and turned to commercial account.

The operation of this company results in a threefold benefit to Brunswick and all of Southeast Georgia tributary to it. The dynamiting of the stumps and gathering of fallen timbers is making ready for the plow of cultivation thousands of acres of cut-over lands that otherwise would be uninviting to the prospective settler on account of the expense attached to clearing. The Yaryan company, however, not only clears this land without expense to the owners, but actually pays for the privilege. The landowner is making a profit that he never dreamed of two years ago.

The railroads in hauling this timber into Brunswick are getting immense and profitable tonnage that they have never imagined would be theirs.

A vast and fertile stretch of country is being made inviting to prospective settlers. The lands are being made more valuable, and fallen pine timber and pine stumps that have heretofore been considered as obstructions and injurious to the land are being turned to commercial profit.

The operations of the Yaryan company begin at a point near Fitzgerald on the Atlanta, Birmingham & Atlantic Railroad, about two hundred miles from Brunswick, and from that point into the city of Brunswick a traveler from the train may see numerous camps of the Yaryan company where the laborers are gathering the wood, hauling it into the cars on four-mule wagons, or see electrically-driven augers boring into thousands of stumps, or hear dynamite exploding continuously and see the flying stumps blown into the air.

The Yaryan company contemplates using the wood pulp resulting from the extraction of the resin for the manufacture of paper of a high grade.

Officers of the company have declared that a \$400,000 paper mill will be erected at Brunswick, and that it will later be increased to represent an investment of \$1,000,000.

The American Naval Stores Co. has recently contracted for the entire output of the Yaryan Naval Stores Co. for a term of years not made public.

Outcome of the Atlanta Panama Conference.

[Special Correspondence Manufacturers Record.]

Atlanta, Ga., December 16.

The real work of the Panama Canal conference was done on the second day of the meeting last week, when the committee on organization reported a plan upon which a permanent organization should be entered into under the name "Southern Panama Canal Conference." The organization is to take in chambers of commerce of the Southern States and those States of the Middle West bordering on waters flowing into the Gulf, and also individuals, firms and corporations engaged in business that gives them interest in the subject of the canal.

The affairs of the new organization were placed in the hands of an executive committee composed of J. W. Porch of Louisiana, John W. Sibley of Birmingham, Wilson G. Harvey of South Carolina, F. D. M. Strachan of Georgia, Henry F. Baker of Maryland, G. L. Swiggert of Tennessee, E. M. Cole of North Carolina, E. O. Painter of Florida. The committee has power to add members from other States as they become members of the conference through their various organizations. Wilmer L. Moore, president of the Atlanta Chamber of Commerce, was made president.

The railroad section of the conference, presided over by W. W. Finley, president of the Southern Railway, was first addressed by President L. E. Johnson of the Norfolk & Western. Mr. Johnson said he believed the railroads of the country were more nearly prepared to meet the new conditions to be created by the opening of the canal than the manufacturing and commercial establishments, and thought they would have little trouble in keeping up with such increased demands as will be made upon them. "What I think we must do ultimately to get the results of the money we are spending on

the canal," said he, "is to send our young men—the young men just out of engineering and agricultural colleges—to South America to get us into intimate touch with the requirements of that trade field. I believe there is something also for South America to do. Those countries should send their children to this country to be educated in our colleges and trained in our great technical schools."

President Emerson of the Atlantic Coast Line took the same view as that expressed by Mr. Johnson, that this country must establish some of its own people in the countries South to study conditions and teach the folks at home what was necessary to be done to secure their trade. He said his road had already taken steps to secure some advantage from the opening of the canal, having joined with the Florida East Coast Railway in establishing a line of steamers from Key West to the eastern end of the canal.

George H. Campbell, assistant to the president of the Baltimore & Ohio Railroad, told how he had learned, while located on the Mexican border in Texas years ago, why foreign countries could ship their goods right through the United States into Mexico and secure trade that the merchants and manufacturers of this country could not get. It was because the European manufacturers made the goods to suit the Mexican trade. European shoes were bought by the Mexicans because they wanted cloth shoes with high heels and fancy tops and trimmings, and the manufacturers of this country did not and would not make them. It was so with other things. The European business man made his wares to suit the trade, while the United States business man tried to make his trade suit his wares. Mr. Campbell said the Baltimore & Ohio, while not a Southern road, strictly

speaking, had already placed 7500 new cars in commission in anticipation of the increase of business to come with the opening of the canal, and before the end of December would have 1000 more. This would make 8500 new freight cars secured since January 1. Liberal provision has already been made, he said, for additional trackage, power, terminals and other facilities necessary to increased business.

W. J. Harahan, the new president of the Seaboard Air Line, declared he had been greatly instructed by the discussions he had heard during the conference, and expected to be much benefited by them. They had proved to his mind that trade would be developed by the opening of the canal that would be well worth going after. Among the things necessary for the railroad to do "is the making of rates that will develop and encourage business."

The iron and steel section, presided over by J. W. Sibley, president of the Chamber of Commerce of Birmingham, proved a very interesting one. Mr. Sibley opened it with a graceful speech of felicitation, in which he paid a high compliment to the Atlanta Chamber of Commerce for bringing about the meeting and making it such a success, and then introduced J. H. Adams of Birmingham as a man equipped to discuss the iron and steel business in all its phases. Mr. Adams fully redeemed the promise made for him by reading a most interesting and highly informing paper upon the iron and steel business and the relation which the opening of the canal ought to be made to bear to it.

The merchant marine section, presided over by J. W. Porch, president of the Progressive Union of New Orleans, was taken up with what proved to be the most exciting discussion of the meeting. Samuel L. Douglas of Nashville had several times attempted to get before the meeting a resolution declaring in favor of a ship subsidy and calling upon Congress to enact a law providing for it, but had been ruled out of order until this time. As soon as Mr. Porch had concluded his opening address, which took strong ground in favor of re-

habilitating the American merchant marine, Mr. Douglas introduced his resolution, which had been modified to the following:

"Whereas, the Panama Canal, built by American enterprise and capital, will fall immeasurably short of its possible benefits to American commerce unless American ships exist to use it; therefore, be it

"Resolved by the Southern Panama Canal Conference, in session in Atlanta, Ga., December 10 and 11, 1912, That we respectfully urge that the Congress of the United States formulate and carry into effect at the earliest possible moment definite and practical legislation which will give all necessary and reasonable encouragement to American merchant marine and American commerce with foreign countries; and be it further

"Resolved, That the executive committee of the Southern Panama Canal Conference be and are hereby instructed to transmit this resolution to the President of the United States, and the members of Congress of the United States, and use all other necessary methods to see that the intent of this resolution is carried into effect by the Congress of the United States."

The resolution would probably have gone through without discussion but for the fact that M. B. Trezevant of the New Orleans Progressive League, in discussing it, rather broadly intimated that it meant ship subsidy. This brought Frank Glass, editor of the Birmingham News, to his feet with a red-hot speech in opposition to the subsidy idea, and a rather acrimonious debate was precipitated.

W. W. Finley opposed the resolution in a well-timed and moderate speech, saying that the conference could not afford to declare upon a question that had so long been recognized as a political one. His railroad, he said, had always kept out of politics, and he did not want to become embroiled in a political row now. Besides, he said, the organization was now in a formative state, and who could say what effect a declaration which can be

regarded as political would have upon the question of securing membership. Possibly there were some who would object to joining an organization already committed to a matter about which there is so wide a divergence of opinion among business men as well as politicians. He thought the incoming administration would be fully alive to the necessity of restoring the American merchant marine, and that it might well be left to develop its own method.

D. M. Stewart of Chattanooga made a speech, in which he took Mr. Glass to task rather severely for, as he said, injecting politics into the discussion, and this brought a hot retort from the latter gentleman under question of personal privilege. Mr. Stewart attempted a personal explanation, but was cut down by the chairman, who said the discussion must be limited to a very short time.

Arthur H. Dedmun, representing the Navy League, which is working for the upbuilding of the merchant marine in order that the country will have the supply of ships necessary to accompany the war fleet in case of war, made an interesting talk with relation to that subject, and in opposition to ship subsidy. He said he favored subvention, which differed from subsidy in that it gave aid to the builders of private ship lines on condition that their ships should be built according to naval specifications and held ready for Government service in case of war.

Leland Hume of Nashville and G. B. Weatherley of Brunswick spoke in favor of the resolution, which was adopted by a practically unanimous vote.

K. Fukushima, a Japanese from Dallas, Tex., spoke of Japan's interest in the canal. He said his country was already busy building ships to care for the trade thus to be increased, and expressed the hope that this country would do likewise, for, he said, no one nation could alone carry the trade that the opening of the canal will develop.

E. J. Watson, commissioner of agriculture of South Carolina, presided over the agricultural section, which he opened with a strong speech illustrating the tremendous effect the opening of the canal will have upon the agriculture of this country. He showed how Southern ports can be made to benefit by the canal if they get themselves in readiness to do the business, and pointed out the vast extent of country whose products will naturally come to such ports if furnished the same facilities there as elsewhere.

Harvie Jordan of Atlanta also made an interesting address on the subject of Southern agriculture and its relation to the canal.

A resolution offered by Mr. Watson and adopted without dissent urges that Congress take such action as may be necessary looking to the appointment of specially equipped commercial emissaries who will gather, collate and distribute information concerning the commercial needs of foreign countries, particularly those of the Orient and the East Indies, with especial reference to the effect the opening of the Panama Canal will have on this trade.

While this report is intended to reflect the things done and sentiments expressed at the meetings of the conference, it does not, and cannot, give those sidelights that are often more important and tell more about a gathering of the kind than what is seen and heard upon the floor of the meeting place. The hundred scraps of conversations heard in hotel lobbies, the scores of short interviews and illuminative expressions that cannot be repeated—these are the things that make up the real meaning of such gatherings. Judged by these, I am convinced that the movement begun here will prove of very considerable bene-

fit to Southern Commerce, unless the whole thing goes to pieces upon the rock of ship subsidy. For no matter what my own opinion, or that of any other one man, or dozen men, may be upon the policy of Government subsidies for ships, the fact remains that it forms a line of cleavage upon either side of which are found millions of men throughout the country, and

there is danger that many will be kept out of a movement to whose highest success all are necessary.

I find that the railroads of the South stand ready to give liberal financial support to the new organization, and a prospect for a career of usefulness lies before it if it survives the danger that has attended its launching. GEO. BYRNE.

\$10,000 in Agricultural Prizes

THIS YEAR'S AWARDS BY THE TEXAS INDUSTRIAL CONGRESS.

Following the address of President Exall at the fourth annual convention of the Texas Industrial Congress at Dallas last Thursday, awards were made of the 141 prizes, aggregating \$10,000 in cash, in the second year's farm products contest under the auspices of the congress. There were more than 4000 contestants in 55 counties of the State, and the number of prizes awarded in each of the counties was as follows:

Austin, 2; Baylor, 2; Bosque, 1; Brazos, 1; Brewster, 1; Burleson, 5; Cameron, 2; Camp, 2; Cass, 1; Coke, 2; Collin, 3; Dallas, 11; Delta, 1; Denton, 1; Duval, 1; Erath, 4; Falls, 5; Fannin, 3; Fayette, 17; Fisher, 1; Freestone, 3; Gray, 1; Hale, 4; Hardeman, 1; Harrison, 2; Henderson, 3; Hopkins, 1; Hunt, 6; Hill, 2; Jasper, 1; Limestone, 1; Lamar, 1; Lavaca, 4; Leon, 1; Marion, 1; Matagorda, 3; Maverick, 2; Milam, 2; Morris, 1; Navarro, 1; Nueces, 4; Rusk, 7; San Augustine, 2; San Patricio, 1; Shelby, 1; Smith, 5; Titus, 7; Van Zandt, 1; Walker, 2; Ward, 1; Washington, 4; Wichita, 1; Williamson, 4; Wood, 1.

Winners of the first three prizes in each class in the contest were as follows:

Class A. Four Crop Demonstration Farms. 2½ acres in cowpeas, 2½ acres in Kaffir corn or milo maize, 2½ acres in cotton and 2½ acres in corn.

First Prize, \$1000—C. A. Doss, Rockdale, Milam county. Cowpeas 36.48 tons, market value at \$15, \$547.20; net profit \$517.10. Milo maize 297.82 bushels, market value, at 40 cents, \$119.12; net value, \$73.77. Cotton 3.54 bales, market value, at \$60, \$212.88; net profit, \$123.63. Corn 186.53 bushels, market value, at 70 cents, \$130.57; net profit, \$191.12. Total net profit, \$905.62.

Second Prize, \$750—Wm. L. Norman, Kingston, Hunt county. Cowpeas 20.55 tons, market value at \$15, \$308.25; net profit, \$279.35. Milo maize 417 bushels, market value at 40 cents, \$166.80; net profit, \$112.50. Cotton 5.17 bales, market value at \$60, \$310.68. net profit, \$219.13. Corn 179.79 bushels, market value at 70 cents, \$125.85; net profit, \$101.00. Total net profit, \$712.58.

Third Prize, \$500—J. T. Holmes, marlin, Falls county. Cowpeas 27.22 tons, market value at \$15, \$408.30; net profit, \$373.10. Kaffir corn 80 bushels, market value at 40 cents, \$32; loss, \$4.30. Cotton 3.70 bales, market value at \$60, \$222.12; net profit, \$135.21. Corn 63.50 bushels, market value at 70 cents, \$44.45; net profit, \$3.65. Total net profit, \$507.06.

Class B. Texas Corn Club. For boys and girls under 20 years of age, cultivating one acre of corn.

First Prize, \$250—Alford Branch, Overton, Rusk county, 167.5 bushels per acre. Cost of production, 13 cents per bushel. Net profit at 70 cents per bushel, \$95.25, equal to 6 per cent. on an investment of \$1589.

Second Prize, \$125—Emil S. Kovar, Fayetteville, Fayette county, 125.27 bushels per acre. Cost of production, 14 cents per bushel. Net profit at 70 cents per

bushel, \$89.38, equal to 6 per cent. on an investment of \$1160.

Third Prize, \$75—John R. Henderson, Birtbright, Hopkins county, 133.8 bushels per acre. Cost of production, 19 cents per bushel. Net profit at 70 cents per bushel, \$67.16, equal to 6 per cent. on an investment of \$1119.

Class C. Texas Cotton Club. For boys and girls under 20 years of age, cultivating one acre of cotton.

First Prize, \$250—E. S. Kavar, Fayetteville, Fayette county, 2.01 bales. Cost of production, \$14.32 per bale; net profit at 12 cents per pound, \$91.68, equal to 6 per cent. on an investment of \$1525.

Second Prize, \$125—H. W. Kloppenburg, Sublime, Lavaca county, 2.09 bales. Cost of production, \$16.30 per bale; net profit at 12 cents per pound, \$91.33, equal to 6 per cent. on an investment of \$1522.

Third Prize, \$75—Webb Chow, Tyler, Smith county, 2.38 bales. Cost of production, \$24.22 per bale; net profit at 12 cents per pound, \$85.40, equal to 6 per cent. on an investment of \$1425.

Class D. Unirrigated Forage Crops. Two acres of Kaffir corn or milo maize without irrigation.

First Prize, \$300—W. J. Levens, Roby, Fisher county, milo maize, 158.51 bushels per acre. Cost of production, 9 cents per bushel. Net profit at 40 cents per bushel, \$49.05 per acre; a return of 6 per cent. on an investment of \$817.

Second Prize, \$200—Raymond Baca, Fayetteville, Fayette county. Kaffir corn, 157.1 bushels per acre. Cost of production, 9 cents per bushel. Net profit at 40 cents per bushel, \$48.49 per acre; a return of 6 per cent. on an investment of \$808.

Third Prize, \$50—Wm. E. England, Seymour, Baylor county, milo maize, 143 bushels per acre. Cost of production, 6 cents per bushel. Net profit at 40 cents per bushel, \$47.95 per acre; a return of 6 per cent. on an investment of \$782.

Class E. Irrigated Forage Crops. Two acres of Kaffir corn or milo maize.

First Prize, \$300—C. D. Newberry, Eagle Pass, Maverick county, Kaffir corn and milo maize, 168.68 bushels per acre. Cost of production, 9 cents per bushel. Net profit at 40 cents per bushel, \$52.21 per acre; a return of 6 per cent. on an investment of \$870.

Second Prize, \$200—J. L. Norris, Richards, Nueces county, milo maize, 130.43 bushels per acre. Cost of production, 12 cents per bushel. Net profit at 40 cents per bushel, \$36.17 per acre; a return of 6 per cent. on an investment of \$602.

Third Prize, \$70—R. J. Clark, Hale Center, Hale county, milo maize, 127.1 bushels per acre. Cost of production, 14 cents per bushel. Net profit at 40 cents per bushel, \$32.39 per acre; a return of 6 per cent. on an investment of \$539.

Last year the regents of the University of Texas gave to each of the winners in the contest of the congress a full four-year scholarship in the university. Provisions were made as follows:

Scholarships are good for four years after the entrance of each holder in the

university, are limited to persons under 21 years of age at the time the prize is won, and are effective when the persons to whom they are awarded are able to satisfy the age, scholarship and other entrance requirements of the university. This year they have very kindly offered 19 scholarships in the different classes as follows:

The five highest in Class A; the four highest in Class B and in Class C; the three highest in Class D and in Class E. The same requirements and limitations will prevail this year as were provided for in 1911.

In Class A—Messrs. Chas. A. Doss, Rockdale; Wm. L. Norman, Kingston; J. T. Holmes, Marlin; E. M. Woods, Gladewater and J. P. Kovar, Fayetteville, are entitled to the University of Texas scholarships, provided they can fulfill the requirements.

In Class B—Alford Branch, Overton; Emil S. Kovar, Fayetteville; John M. Henderson and Henry Kovar, Fayetteville, will receive scholarships when they have fulfilled the conditions.

In Class C—E. S. Kavar, Fayetteville; H. W. Kloppenburg, Sublime; Webb Crow, Tyler, Smith county, and Miss Ammie Lou Darby of Pittsburg will receive scholarships.

In Class D—W. J. Levens, Roby; Raymond Baca, Fayetteville; William E. England, Seymour, are entitled to scholarships.

In Class E—C. D. Newberry, Eagle Pass; J. L. Morris, Ricardo, and R. J. Clark of Hale Center are entitled to scholarships.

To Drain 26,000 Acres.

Referring to the progress of Drainage District No. 10 of Scott county, Mo., Albert DeReign, attorney for the district, Benton, Mo., writes to the MANUFACTURERS RECORD as follows:

"Northcut Drainage District (Drainage District No. 10) comprises about 26,000 acres of land lying along the Mississippi River bottoms, a mile or so back from the river, and comprises what was a few years ago a part of an extensive swamp extending from the foothills at Commerce, Mo., for a distance of several hundred miles. The first drainage district in Missouri was organized in what is now Drainage District No. 10 in 1900, or more exactly, in 1890, and was styled Northcut Drainage District No. 1, costing \$55,000. The latter improvement reclaimed quite a large body of the land embraced in the district, increasing the reclaimed land from a nominal price of \$4 an acre, before reclamation, to \$100 to \$125 after reclamation. Drainage District No. 10 embraces about one-half of old District No. 1 and an additional area not heretofore embraced in any drainage district. The improvement now under way consists of removing 900,000 cubic yards of earth from the old Northcut ditch (widening and deepening the same for some 30 miles), the main ditch being some 30 feet wide at its head and 46 feet at its mouth, with an average depth of seven feet.

"The contract for digging the ditches was let to Clyde A. Walb of La Grange, Ind., on September 4, at \$65,000, the work to be completed in 24 months from said date; \$76,000 bonds have been issued and sold to cover costs of the improvement, maturing in annual installments covering a period of 20 years after September 4, 1914. The average cost per acre for the entire period, including principal and interest, will be about \$4.79. The average benefits per acre will be \$40 at a conservative estimate, or a total of \$1,040,000 in increased market value of the entire district upon a total expenditure at the end of 20 years of \$124,330."

Economies in Crushing Limestone.

By G. P. GRIMSLEY, Consulting Geologist.

Large capacity, with low production cost, and removal of labor trouble due to scarcity and demand for ordinary labor, are factors involved in the construction of the new plant of the National Limestone Co. at Martinsburg, W. Va. New principles and methods are therein applied, resulting in an operation worthy of study. In most stone plants of the country low cost of plant appears as the primary feature, rather than low cost of production. This plant, when complete and running at even half its capacity, will be able to load stone on cars at a cost heretofore

70-ton Vulcan locomotive to the plant. All quarry and main-line tracks, five miles in total length, are standard gauge, rock ballasted.

The quarry ledge, 70 feet high at present, is drilled by two Clipper well drills. While this method of drilling is used in most of the large Northern and Western quarries, this is the only quarry in this area following this method, which represents a decided lowering of cost in drilling and blasting. Seven to nine holes four and a half inches in diameter are drilled to depth of 75 feet and loaded with one

of this operation worthy of special attention is the crushing plant.

The typical crushing plant in the West Virginia quarry operations is a wooden tower building made of heavy timber securely braced to withstand shock and jar, and equipped with ordinary gyratory rock crushers, rotating cylindrical screens and bucket elevators, with a daily capacity of 800 to 1500 tons.

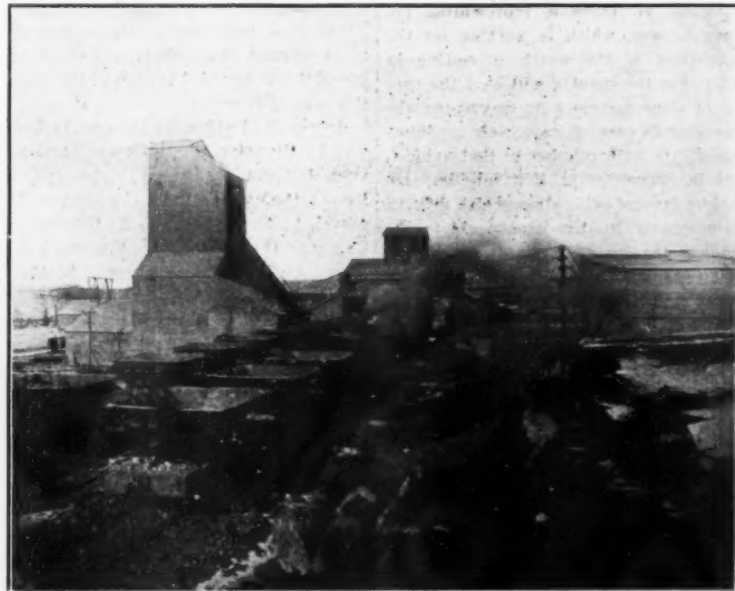
The plant of the National Limestone Co. is a modern steel and concrete building equipped with the latest and most efficient labor-saving machinery of large capacity. The building covers a floor space 50x220 feet, and is 60 to 110 feet high.

The lower building at the right has two floors. On the upper floor is the hopper and railroad tracks; on the lower are the crusher and motors, with a pit below 36 feet in depth containing the lower dis-

tured and installed under the direction of the Edison Crushing Roll Co. This crusher consists essentially of two rolls, seven feet long and six feet diameter, on which are bolted heavy iron plates containing numerous projections or knobs. These knobs are of same size and shape, about two inches high, except on one roll, the slugger, which has two rows of slugger plates on diametrically opposite sides of the roll, on which the knobs are of little greater height and steeper face. Each roll complete weighs 45 tons, and they are set parallel and revolved in opposite directions by separate 200-horsepower motors at a velocity of 175 revolutions per minute. The knobs, and especially the slugger knobs, thus strike the rock like a multitude of sledge hammers, shattering rather than grinding the stone, with a low percentage of fines or screen-



QUARRY OF THE NATIONAL LIMESTONE CO., MARTINSBURG, W. VA., WITH MACHINERY AT WORK.



STONE-CRUSHING PLANT OF THE NATIONAL LIMESTONE CO., MARTINSBURG, W. VA.

considered impossible. Its future work will be watched with serious interest by the stone trade. It is one of the three largest stone-crushing plants in the country, the other two being located near New York and Chicago.

Near Martinsburg the great Shenandoah Valley limestone, which extends from Southern Virginia northward into Pennsylvania in an unbroken belt through those fertile valleys, includes a number of lenticular bodies of exceptionally pure limestone averaging 98 per cent. carbonate of lime and under 1 per cent. silica. These lenses vary in width from a few feet up to 1000 feet, and in length up to two miles. Such high-grade limestone is of great value as iron and steel furnace flux, for glass manufacture, fertilizer and various chemical uses.

This limestone has been worked in this section for 20 years, and at the present time there are five different companies with large quarries. They load the stone in the quarry by hand, and transport it to gyratory crusher plants in small cars up a cable incline. A large quarry thus uses a large force of laborers, and the plant capacity is usually 1500 to 2000 tons daily.

At the National Limestone quarry the stone is not handled by laborers from quarry ledge to outgoing railroad car. It is the only quarry in this entire area where the steam shovel is used for loading stone. A Bucyrus 110-ton shovel, with a three-yard dipper, loads the stone into 15-ton standard-gauge steel-skip cars, which are hauled in train up the 4 per cent. incline of the quarry by a 60-ton Climax geared engine and thence by a



QUARRYING LIMESTONE BY HYDRAULIC POWER.

to two tons of dynamite. On account of the large size crusher hopper, it is not necessary to break the stone into small blocks by small shots. Blocks 10 to 15 tons weight can be lifted by the shovel and readily pass through the crusher. By hand methods a quarry producing 2000 tons of crushed stone daily would require 125 or more laborers. In the steam-shovel quarry 20 men would be sufficient for this output.

While the quarry is thus characterized by modern equipment and methods, with consequent reduction of cost, the feature

charge hopper, tracks of the skip hoist and smaller motors. The tower building, seven stories in height (110 feet), contains the screens and storage hopper and bin. At the top of this building the skip cars on the hoist discharge their loads of crushed stone over the screens into the storage bins. A third building to the south, not yet erected, will contain the fine grinding machinery and sorting screens for by-product manufacture.

The central feature of the whole operation of this plant is the great crusher, the invention of Thomas A. Edison, manufac-

ings. Large blocks of 8 to 10 tons weight are thus broken in a few seconds of time. The rolls are readily adjusted in distance apart, and may be set to crush eight inches and under or blocks several feet in diameter.

The upper hopper will admit blocks 7x10 feet in size. A block of 20 tons weight was crushed at this plant, consuming about 25 seconds of time. This would be at rate of 3000 tons an hour. The theoretical capacity computed from the size of rolls and revolutions per minute is about 55,000 tons a day. The working capacity of the rolls depends on the capacity of the elevators for removing the crushed stone from the crusher, which at the National plant is 1000 tons an hour, or 10,000 tons a day.

The advantages of the Edison roll crusher to the National Limestone Co. are large capacity, low blasting cost at quarry, low cost of repairs, low percentage of screenings due to the sledge-like action of the rolls, low labor cost, as 10 to 12 men represent the total required force to operate the entire plant, car loading and switching.

In nearly all crushed stone plants the rock is transferred from the crusher to the top of the elevated screens by bucket conveyors or elevators, a series of rectangular steel buckets fastened to an endless chain running over small pulleys. When these buckets are large enough to give a capacity of 5000 to 5000 tons a day there is an enormous weight in the elevator requiring a high consumption of power and also a high expense of wear and tear. Rock fragments become lodged between

the buckets, causing breakage and the resultant interruption in the work.

In the National plant, to overcome these troubles a double-track skip hoist was installed similar to those in the iron blast furnaces. This hoist incline is 140 feet long, set at an angle of 50 degrees, and leads from the bottom of the pit under the roll crusher to the top of the screen-house. On the incline are two tracks, which merge into one at the bottom under the crusher. Two steel skip cars made by the Arthur Kople Company are drawn up the incline by steel cables passing over two large sheave wheels at the top of the tower building, thence down to the hoist drum.

The arrangement is such that as the loaded car is drawn up the incline the empty one passes down. The cars weigh

control apparatus was installed by the Otis Elevator Co.

The hoist is operated by a 375-horse-power electric motor, and is controlled by a magnetic automatic switchboard containing 14 magnet switches, which in their action by contact start the cars, reverse the direction of movement, retard and accelerate the car, stop the car at top of incline, set emergency brake in case of overload or loss of current. The control switch is near the hoist and remote from the main switchboard. When this switch is thrown the car starts slowly from under the crusher, then passes with increased speed up the incline, automatically slowing down at the top, discharging its load slowly over the screens. In case of any accident in its operation or running of car past its proper terminus, auto-

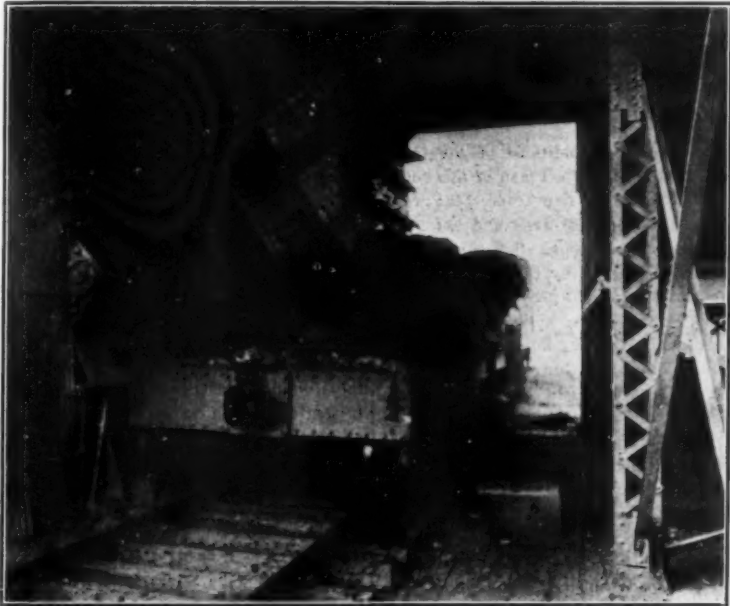
smaller sizes drop through the screens and are carried by a Robbins conveyor belt to other stationary perforated screens, which separate this stone into ballast and screenings.

The entire plant is operated by electricity. The power is generated by waterfall on the Shenandoah River 19 miles distant by a Winchester corporation and sold at a very reasonable cost to the National company. The current comes into the transformer-house with 22,000 volts, and is there stepped down in three oil transformers to 440 volts for use in the plant motors. All the wiring is in iron conduits, avoiding exposed wires, with their danger of fire and life. In the plant are two 200-horse-power motors, one 375, one 50, two 15 and one 3 horse-power, or a total of seven motors, with three switch-

and 300,000,000 tons of lime and ballast rock. Most of the flux stone is shipped to Pittsburgh, and some even into Northern Ohio.

In both of the present quarries Cameron pumps are used to keep out the water. In the larger quarry a pump with five-inch suction and six-inch discharge keeps the deep hole practically free from water. This pump runs day and night, with a cost of repairs in over a year run of only a few dollars. A smaller Cameron pump is used in the other quarry.

When the skip car comes from the quarry to the crusher-house it is stopped at side of the hopper and the hoist cable is hooked to one side of the skip, which is raised and tipped into the hopper by an Otis Elevator Co. electric automatic hoist operated by a 50-horse-power motor.

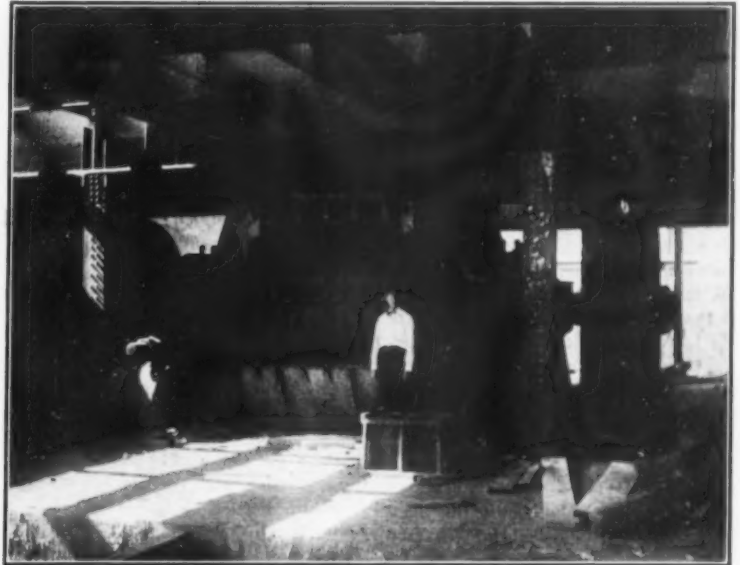


QUARRY SKIP DUMPING 20 TONS OF STONE INTO CRUSHER HOPPER.

10 tons each, and hold 20 tons of crushed stone. On the rear axle of the cars are two wheels outside the gauge of the four wheels of the car. The outside wheels run on a wider gauge track at the top of the hoist, and this track rises to a perpendicular plane, thus elevating the rear of the car until at the end of the operation the car is tilted at an angle of 45 degrees, discharging its entire load over the screens. On this hoist a car of 20 tons can be dumped every minute, or a capacity of 1200 tons an hour. The hoist and its

matic safety brakes are set, stopping the car instantly.

Instead of revolving power screens, the Edison stationary bar screens are used. The screen is a series of parallel steel-plate bars set at proper angle. There are three sets of these, and the stone is dumped from the skip hoist car on the first screen, thence falling to the other two sets. The larger flux stone passes over the screens into the storage bin, from which it is loaded through chutes into the railroad cars. The 2½-inch stone and



EDISON ROLL CRUSHER AT PLANT OF NATIONAL LIMESTONE CO., MARTINSBURG, W. VA.

boards with automatic control magnets. The motors are General Electric, while the transformer-house equipment is Westinghouse. The quarry skip cars are automatically dumped into the hopper by an Otis Elevator Co. electric hoist. The trucks of these cars were made by the American Car & Foundry Co., and the bed or skip by the Robert Newbold Company.

The National Limestone Co. owns over 1000 acres of land, estimated, after diamond drilling of the area, to contain 35,000,000 tons of low-silica limestone

After unloading a reversal of the machine drops the skip back into place on the car truck. A 15-ton load of stone is unloaded and skip set back in place ready for another car in one minute.

The steel work of the buildings was erected by the W. W. Lindsay Company of Philadelphia. The plans were supervised by Ladd & Baker, engineers, of Philadelphia.

It is estimated that the standing forests of Louisiana today will yield 119,800,000,000 feet of lumber.



MAIN-STREET VIADUCT AT FORT WORTH.

Largest of four reinforced concrete highway viaducts planned within city limits by Tarrant county; plans and supervision of Brenneke & Fay, St. Louis; Main-street viaduct 752 feet long; one arch span of 225 feet, two arch spans of 175 feet, one arch span of 150 feet, three girder spans of 62½ feet, seven girder spans of 50 feet and two girder spans of 25 feet; roadway 54 feet between curbs; each sidewalk, 8 feet wide; two electric railway tracks; roadway of vitrified brick or creosoted wood blocks; arch spans of 3 hinged ribbed type having structural reinforcement; cost \$373,952; contractor, Hannan-Hickey Bros. Construction Co. of St. Louis. West Seventh-street viaduct will be 1041 feet long; contract awarded at \$106,772 to Tarrant Construction Co. of Fort Worth. Plans for other two viaducts not complete. All four will cost about \$650,000.

Iron and Steel Industry and the Panama Canal.

By J. H. ADAMS of Birmingham, Ala.*

It seems a long jump back to 1567, when Philip the Second of Spain ordered his engineers to survey a canal route across the Old Panama to the Atlantic side, but I was reminded of this fact by the request of the chairman for me to attempt to say something in reference to the iron and steel industry and its relationship to the Panama Canal. As a worker both in mill and furnace it has always seemed necessary to keep in touch with the varying and rapidly changing conditions in the iron trade, and I recalled Mr. H. H. Rousseau, C. E., United States Navy, telling of the Spanish King's mortification and disappointment in the report of that engineer that the scheme was impracticable for want of proper tools and equipment, and later of Philip's referring the matter to the Dominican Friars and they, failing to arrive at any definite plan of work, sought shelter in the verse of Scripture so familiar to all mankind, "What God has joined together let no man put asunder." This story, told by a member of the Isthmian Canal Commission, stamped itself on my mind as being identical with the position that seems to have been taken by the English and German iron and steel men, and their allied manufacturers, that they are married to certain countries in so far as supplying them with iron and steel and their kindred products.

I take it that, proud as we are of America's triumph in the building of the Panama Canal, it will not be held as treason to say that we of the South are prouder still to hold a closer relationship to it by reason of our geographical position than any other manufacturing section of this or any other country, and for this reason we desire to change the "material" ownership of trade that our English and German friends claim with Latin America and other countries, or at least to share in a part of the trade that will legitimately belong to us if we go after it in a twentieth century way.

I am aware that Mr. Carnegie defined "the steelmaking center as embraced within a line drawn from Pittsburgh, Pa., to Wheeling W. Va.; northwest to Lorain, O., on the shores of Lake Erie; eastward to Cleveland, on the same body of water, and southeastward to Pittsburgh," and yet their iron ore is carried from Lake Superior mines, the coke from Connellsville or West Virginia, and the limestone from Ohio, while Alabama's furnaces and steel mills get all of their iron ore, coke and limestone within a radius of less than 25 miles.

I quote from the pen of Emory R. Johnson, professor of transportation and commerce, University of Pennsylvania: "The iron industries of the South will send through the canal to South America, California and trans-Pacific countries large quantities of iron pipe, engines, mining and agricultural machinery and steel wire. A large iron and steel company of the United States, whose business amounts to more than \$40,000,000 annually, says that it is looking forward to a large business export with the different colonies of the United States, South America, Asia and Africa. This firm believes that Birmingham, Ala., is destined to become the principle manufacturing center in the United States for the export trade in iron and steel." This quotation is from an

*From an address before the Panama Conference at Atlanta.

article by Professor Johnson, Vol. 4 of "The Making of America." Some years before Mr. Johnson's article was printed, and before the advent of the United States Steel Corporation into the Birmingham district, there appeared, and still stands on a plate at the feet of the iron figure of Vulcan this prophecy:

Just as my stature towers above the sons of earth,
So shall the district from whose breast the ore
And coal were torn and fused to give me birth
Exceed all others in time's onward march;
For o'er and o'er
Nature hath flung her treasures with a generous hand.
And Birmingham sits throned; both hemispheres
Can draw on her. The mineral wealth of every land
Is there allied to rule the world in future years.

Professor Johnson further says: "The opening of the Isthmian Canal would be of incalculable benefit to us in increasing our facilities for export business, and would warrant the development of our Southern property to the fullest extent. We are positive that the markets of the world can be reached and supplied with our finished product, especially from the Southern district." This is the conclusion of one of the recognized greatest authorities on the world-wide subjects of transportation and commerce. By the Southern district he means the several States in which the great mineral deposits lie.

The steel and iron business of the South is no longer in an experimental stage. As an example of its keeping step in the world's progress I can recall that in the spring of the year 1880 that a rail mill then located on Marietta street, in this city, considered 65 tons of 60-pound rails a good day's work, and to come to very near a 15,000 tons per month of steel output was good work for a modern steel mill, yet the Ensley (Ala.) mill produced in the month of November, 1912, 64,800 tons of ingot steel. This plant, at its present rate of production, will in one year make as much metal as the entire make of the whole world in the year 1800. In 1850 the world's production of metal was 4,900,000 tons, a gain of 4,000,000 in 50 years. In 1877 it produced 12,900,000 tons; 1891, 26,200,000, and in 1909 it was 60,000,000 tons. In 1880 the United States and Canada made 1,250,000 tons of steel and 4,000,000 tons of pig-iron. The present capacity of the furnaces in pig-iron has reached 36,000,000 tons. Judge Gary states that at the same rate of increase the output will by 1930 reach in this country and Canada 94,500,000 tons of pig-iron.

The world's new business in the iron and steel trade lies in the countries to be opened up to us by the Panama Canal, or very largely so. A number of our industries like steel have outgrown the capacity of the home market, and they and it must make new markets.

The South has shipped too much of its pig-iron and other crude products, and manufacturers have been paying too much freight thereon; hence they are moving their foundries, factories and mills into the Southern States, and the manufacturers of iron and steel goods must awaken to the importance of the Panama Canal. One manufacturer in Chicago ships to the west coast of South America

15,000 tons per annum of agricultural and mining machinery.

Making, as we do, the cheapest iron and steel in the world, we should be in position to bring new factories, mills, foundries and shops to the raw material and be ready for the new demands upon us by reason of that fact, thus securing for the South its legitimate share of a new and expanding trade.

The English, German and other manufacturers have been awake to the possibilities of Latin America, Japan and other countries, soon to be within our reach; they have sent their men to study the requirements of the different peoples. It would seem advisable that the South do the same thing, so that its manufacturers should not find themselves in the position of the gas-range man whose goods were made standard American height and were naturally refused by the Japanese, a nation that does its cooking in a leisurely way sitting down, but who very quickly bought a competitive Englishman's goods made to suit the national posture.

The changing conditions of the trade force the iron and steel men of this country to go after the new trade. We want not only to pour our rails and bars, our coal and coke through the channels of trade opened to us by the canal, but we want to sell finished products to the new people; nuts, bolts, spikes, pipe of all kinds, chain, farming implements and the thousand and one things now made and sold to them by Great Britain, Belgium, Germany and other countries, who, if they keep that trade, must pass our very doors when the canal is opened to the ships of the world. And this brings me to a feature of the new commerce that is not weighed as seriously as it at least seems to deserve. The natural outlet, aside from railroad transportation, for the iron and steel products of the Birmingham district will be via the Warrior River. The freight tonnage of the Monongahela River is 9,500,000 tons; Allegheny River is 2,500,000 tons; Kanawha River is 1,500,000 tons, or 13,000,000 tons per annum. The present lock capacity of the Warrior River is 36,000,000 tons, and the Government will soon increase this and make it practicable to load the boats of the Alabama furnaces, mills and factories within the district itself.

The opportunity here presents itself to the shipbuilder to buy his plates, channels, sheets, etc., shipping them via river or rail to the coast and assembling his material there and build battleship, cruiser or merchant vessel. This can be made as great an industry as it is on the Clyde, the Tyne or in any other shipbuilding district. Not this alone, but the guns can be made, all of their equipment, ammunition and powder can be produced in the South, and it is thoroughly practical to say that all of the equipment of the greatest of Dreadnaughts from the keel to the slender steel mast that carries its flag, as well as the flag itself and all it stands for, can be made or produced as well in our Southern section as anywhere in the world. Not only the iron and steel, but all the woodwork, the furnishings, and the furnishings from captain's cabin to the forecabin—the engine and boiler-rooms. Consider just what that would mean, and we know that it can be done, because all of the material to accomplish this can be found in our Southland, and it can be fused, forged or rolled, cast or woven, spun or carved until polished or finished it becomes assembled—the moving, living guardian of American liberties—when launched upon the waters.

Only a small part of such products would we design to use in battleships, for

it will be the policy of the men who shape the destinies of our republic to build the merchant vessels for this and other new trade. Every new ship for this Panama service can be built here, and from the product of Southern furnaces, mills, forges, foundries, shop, factory, loom and spindle.

In addition to this, it is also true that the South of its own resources and minerals could build the ships' engines, dynamos, boilers and cars of the world.

Atlanta, Chattanooga, Birmingham, Mobile, nay, every city and its surrounding country, would profit from this great industry. The heavier tonnage of the Birmingham district would be compensated for by the higher-priced materials in its manufactured state of the other districts.

The true relationship of the iron and steel business to the Panama Canal is to use it in such way that it shall indeed be open to the commerce of the world, and one of the best ways it can do this is to foster the small industries of the new South and encourage works and factories to locate all over the Southern States, making it possible and profitable by giving them the basis of great industrial development, cheap iron and steel. That this is to be the policy of the bigger corporations no one doubts, for not only are they coming among us, but they are giving us better goods at lower prices than ever known before.

This is not only true of the Tennessee Coal, Iron & Railroad Co., subsidiary of the United States Steel, but its influence for better life among the men, who, after all, make the nation, is shown in every community surrounding its works. It has the same care for the miner as the steelmaker, and its villages and mining camps have become centers of civic pride. This example is being followed by other companies in the South, and will result in bringing in the skilled workman to fill the works and a greater population to make our "waste places give forth their increase to serve the sons of men."

TO ISSUE \$11,108,300 OF BONDS.

Preparations in Louisiana for Refunding Its Debt.

[Special Cor. Manufacturers Record.]

Baton Rouge, La., December 12.

Louisiana will during the coming year issue and sell bonds to the amount of \$11,108,300 to take care of the indebtedness of the State due January 1, 1914. The securities will bear interest at 4 per cent. During a session of the Legislature in 1910 the State Constitution was amended so as to permit this bond issue. The debt has been resting on the State, covered by bonds, for the past 40 years, and the same interest that is to be paid on the new securities has been paid off annually by the State.

No date has been set for the printing of the bonds, advertising and selling them, but it is probable that the contract for engraving the certificates will be let during the early part of the year. The bonds will be advertised shortly afterwards, and the sale will follow just as soon as the advertising has the proper effect and the necessary details can be arranged. Le Doux E. Smith, State treasurer, will attend to the details connected with the printing, advertising and selling of the bonds. Proceeds from the sale of the new bonds will be used to take up the old outstanding ones, which will mature January 1, 1874. The bonds will be issued in three denominations, as follows: 9085 bonds of \$1000, \$9,085,000; 3500 bonds of \$500, \$1,750,000, and 2688 bonds of \$100, \$268,800.

The board of liquidation, which has full

charge of the sale of bonds, is composed of Governor L. E. Hall, Secretary of State Alvin Hebert, State Auditor Paul Capdevielle, State Treasurer Le Doux E. Smith, all of Baton Rouge; Lieutenant-Governor T. C. Barrett and Speaker L. E. Thomas, both of Shreveport, and Attorney-General R. B. Pleasant of New Orleans, La.

ROY G. BOOKER.

Some Notable Memphis Facts.

[Special Cor. Manufacturers Record.]

Memphis, Tenn., December 9.

The straggling town of 1878 has vanished, and modern Memphis has taken its place. There is no similarity left except in a few isolated spots. One of these is the Court Square. That has been beautified and much improved. Only the squirrels remain unchanged. One big gray fellow I verily believe was the same blithe-some chap I used to feed peanuts to when a youngster myself.

One is forcibly impressed with the solidity, the dignity and the beauty of the public buildings of Memphis. Its people have built for the ages to come. Their money has been spent wisely and well. I have never seen more imposing public structures; simple, ornate, yet utilitarian in every line, in every angle.

The city has established a public golf grounds at Overton Park. Begun first as an experiment for a few city employes, it has grown until now it is fast becoming the most popular spot in the city's environs. Memphis has 814 acres of parks and public playgrounds. The tax rate in 1910 was \$1.70; in 1911, \$1.59; in 1912, \$1.58.

Memphis has a fine health department. The laboratory and workshop of the city chemist are completely equipped. The bacteriologist told me that milk, for instance, sold by Memphis dairies could be depended upon as about as pure as possible to get it, and that there should be no fear of any milk sold in this city.

C. F. DRAKE.

\$5,000,000 Depot for Dallas.

The recognition by the railroads centering in Dallas of the great future of that section is emphasized by the announcement in a special telegram to the MANUFACTURERS RECORD that plans prepared by Jarvis Hunt of Chicago for a union depot and terminal station at Dallas to cost \$5,000,000 have been adopted by the officials of railroads centering at that point in connection with representatives of the city government. This building will be 350 feet long, 210 feet wide, and will be one of the finest structures to be found in the South. The work is to begin within 90 days. A more striking proof of the rapidity of the development of the Southwest could scarcely be presented than this announcement of a \$5,000,000 depot in Dallas. It, however, is but typical of the realization on the part of the people of the whole country of the tremendous development upon which the South is entering.

It is estimated that the 1912 sugar consumption in the United States will exceed 8,000,000,000 pounds, four times the consumption of 1880. About one-quarter of the sugar consumed in this country this year was home-made, about one-quarter came from Hawaii and Porto Rico, and the remainder from foreign lands, chiefly Cuba.

It is announced that Harry E. Kelley, a banker and capitalist of Fort Smith, Ark., will set aside 10,000 acres of timber land in Phillips and Monroe counties, in Arkansas, as a basis for the encouragement of scientific lumbering in the State.

GOOD ROADS

WEEK'S HIGHWAY RECORD.

Progress in Southern Road and Street Improvement.

[Further details of highway undertakings and bond issues mentioned below are given under the headings Construction Department and New Securities, published elsewhere in this issue.]

Bonds Voted.

Ashland City, Tenn.—Cheatham county voted \$100,000 bonds for road construction.

Falfurrias, Tex.—Brooks county voted December 21 on \$45,000 bonds for road construction.

Greenville, Tex.—City voted \$75,000 bonds for additional street paving.

Bonds to Be Voted.

Pineville, Ky.—Bell county votes March 4 on \$500,000 bonds to construct macadam roads.

Port Lavaca, Tex.—Calhoun county will vote on \$135,000 bonds for road construction.

Yonkum, Tex.—Yoakum precinct of De Witt county votes February 5 on \$100,000 bonds for road construction.

Contracts Awarded.

Dallas, Tex.—City awarded contract to pave Carroll avenue with Bermudez asphalt concrete; estimated total cost \$17,694.89; also awarded contract to pave Germania street; estimated cost \$13,586.79.

Denison, Tex.—City awarded contract to pave 22,000 square yards with asphalt macadam, including curbing and guttering; \$15,000 available.

El Paso, Tex.—City awarded contract to pave streets in Government Hill section; expenditure \$40,000.

Norfolk, Va.—City awarded contract for 55,500 square yards asphalt paving; also for 18,000 feet curbing.

Oxford, Miss.—Lafayette county awarded contract at about \$100,000 to construct 25 miles of road; about 15 miles to be surfaced with gravel macadam.

Contracts to Be Awarded.

El Paso, Tex.—City Council has ordered paving of 14 streets and two alleys in downtown district; estimated cost \$20,000.

Houston, Tex.—Harris county appropriated \$9000 for paving with asphalt Harrisburg road.

Mobile, Ala.—Mobile county receives bids until December 23 to surface 10 miles on St. Stephens road.

San Angelo, Tex.—City will construct 40,000 square yards paving in residence portion of city.

San Antonio, Tex.—City will construct about 7800 square yards concrete paving.

Spartanburg, S. C.—City will expend \$90,000 on street and cement sidewalk paving.

Shreveport, La.—City receives bids December 24 to pave 2500 yards with bitulithic.

Capitalized at \$250,000.

With a capital stock of \$250,000 the Tall Timber Lumber Co has been incorporated at Texarkana, Ark. The corporation's officers are: President, W. J. Buchanan; vice-president, Randolph G. Pack; secretary-treasurer, James G. Boyce.

Has \$500,000 Capital Stock.

John F. Hager, J. W. M. Stuart, K. M. Fitzgerald, S. E. Harman and L. S. Wilson, all of Ashland, Ky., have incorporated the Blackstone Coal Co., with a capital stock of \$500,000.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

INTERSTATE COMMERCE.

Cause and Prevention of Railroad Accidents Discussed in Commission's Report.

The twenty-sixth annual report of the Interstate Commerce Commission, which has just been transmitted to Congress, is noteworthy in several respects, but especially in its remarks upon the investigation of accidents. Since the presentation of the last annual report—which recommended legislation requiring the adoption of steel cars and the use of the block system, as well as standardization of the operating rules—and up to September 1, 1912, 81 accidents had been investigated, of which 31 were derailments, 49 collisions and one a grade crossing accident. There were 14 of the derailments caused by bad track, but in five of them accident would not have occurred had speed regulations been observed; in the other cases there were no speed regulations. But in all the investigations it is said that the superior safety of the steel car is demonstrated. Then the report continues:

"The most disquieting and perplexing feature in the problem of accident prevention is the large proportion of train accidents caused by dereliction of duty by the employees involved. By far the greatest number of our serious train accidents are due to the failure of some responsible employee to perform an essential duty at a critical time."

In connection with this statement it is noted that 63 per cent. of the entire number of accidents investigated were caused by mistakes on the part of employees, this percentage including all except one of the collisions (or 48 of them) and four of the 31 derailments. These 52 accidents caused the death of 248 and the injury of 1309 persons. The conclusions expressed in the report concerning these facts are that employees do not lack appreciation of their responsibilities, but that railroad methods of discipline and regulations calculated to insure safety in train operation have remained practically unchanged, notwithstanding the added duties and responsibilities which the conditions of modern railroading have imposed upon the railroad men. The recommendations as to standardization of operating rules and the use of the block system are repeated to Congress, and it is further remarked that great possibilities in the direction of a solution of the problem of accident prevention lie in the so-called safety committees which have been organized on many roads.

Statistics of accidents show that there were a total of 180,123 casualties on the railroads during the year ended June 30, 1912, of which 10,585 were persons killed and 169,538 persons injured, there being increases—as compared with the preceding year—of 189 and 10,379, respectively.

The commission has continued the work of general examination of the accounts of steam railroad companies, and the report says that the correctness of the companies' reports to the commission is thoroughly tested by examination of accounts and other data. Instances of indifference or resistance to accounting regulations are exceptional, the general attitude of the companies being one of hearty co-operation.

A table is presented covering the annual earnings of 63 companies, each with gross earnings in excess of \$10,000,000

yearly, and which shows average number of miles operated: 1912, 176,287; 1911, 173,758; operating revenues, 1912, \$2,361,235,761; 1911, \$2,315,369,264; net operating revenues, 1912, \$734,504,182; 1911, \$731,495,431; total net revenue, 1912, \$743,998,529; 1911, \$732,622,515; operating income after payment of taxes, 1912, \$640,626,697; 1911, \$648,273,973.

Feeder for the Norfolk Southern.

The Carolina Railroad Co. has just been chartered in North Carolina, and has taken over the Kinston-Carolina Railroad, running south from Kinston to Pink Hill, N. C., 20 miles, and the Kinston & Snow Hill Railroad, running north from Kinston, 15 miles, to Snow Hill, N. C. C. I. Millard of Norfolk, Va., vice-president of the Kinston-Carolina Railroad, will be president of the new company. He is also president of the John L. Roper Lumber Co., affiliated with the Norfolk Southern Railroad, so that the merging of the two small roads practically affords the Norfolk Southern, with which connection is made at Snow Hill, a direct north and south line from Farmville, N. C., on its Washington-Raleigh division, via Snow Hill and Kinston to Pink Hill, about 45 miles altogether. It is also reported that an extension of about 15 miles will be constructed from Pink Hill to Chinquapin, N. C., farther south.

The incorporators of the new company are C. I. Millard, J. C. Nelms, Jr., M. S. Hawkins and M. Manly of Norfolk, with Wm. Hayes of Kinston, all of whom are officials of the Kinston-Carolina Railroad, and R. A. Black of Norfolk.

The officers of the Kinston & Snow Hill road are Henry C. Riley, W. T. Hines, Lovit Hines, E. W. Chadwick, W. M. Tyndal and others.

The lines are said to be well constructed. The authorized capital of the new company is \$175,000. Mr. Hayes will be general manager.

A SYNDICATE BUYS LINES.

Houck's Railroads Went to St. Louis Bankers, and Not to the Frisco.

A St. Louis syndicate, according to a report from there, has closed a deal with Louis Houck of Cape Girardeau, Mo., for the purchase of his several short lines of railroad in the southeastern part of the State and which total about 106 miles. It is further said that J. Hunter Byrd of A. R. Byrd & Sons, investment brokers, heads the syndicate, and that the consideration is \$1,500,000. Mr. Byrd is quoted as making announcement that a new company will be formed—the Cape Girardeau & Northern—which will take over the roads and spend \$1,000,000 for improvements, possession being given January 1. It is understood that the purchasers contemplate building an extension from Farmington via Flat River to Bonne Terre, Mo., to reach the lead fields in St. Francois county.

The Houck lines are the Chester, Perryville & Ste. Genevieve Railway; the Cape Girardeau & Chester Railroad, the Cape Girardeau & Thebes Bridge Terminal Railway, and the Saline Valley Railroad. Construction of these roads began seven years ago. It was reported last week that a deal was on to sell them to the Frisco System, which purchased some other lines from Louis Houck several years ago, but officials of that company denied the statement.

Mr. Byrd is further reported saying that the interests which have acquired the lines are independent of any other railroad connection, and their purpose is to improve and operate them. They own railroads in Texas and other States. He

is president of the Portland & Southeastern, a short line in Arkansas.

Florida Oranges and Railroads.

The Atlantic Coast Line has done a good piece of work in its little leaflet entitled "The Florida Orange," which is distributed by the passenger traffic department, of which W. J. Craig is manager. It tells first of the superior excellence of the oranges raised in Florida, then how to buy them, how to keep them and how to eat them, advising that the best way to obtain the full benefits of the fruit is to squeeze them and drink the juice, of which they contain a very large quantity as compared with some others.

Mr. Craig says: "Florida has made an immense citrus fruit crop this year, and we were desirous of bringing to the attention of the country the advantages of the Florida orange over those of any other section. The contents of this leaflet will appear on the back of our menu cards, and the article will also appear in our folders and advertising matter from time to time, and we have induced other railroads to get out similar literature on the subject."

New Equipment, Rails, Etc.

Norfolk & Western Railway has ordered 500 steel underframe ventilated box cars from the Mt. Vernon Car & Manufacturing Co., Mt. Vernon, Ill., and 500 steel underframe stock cars from the Ralston Steel Car Co., Columbus, O. All these are of 40 tons capacity.

Illinois Central Railroad, according to a report from Chicago, where its headquarters are, has ordered 25 Pacific type locomotives and 30 heavy switching locomotives from the American Locomotive Co., New York; also 2500 all-steel gondola cars and 500 flat cars from the Bettendorf Axle Co., Davenport, Iowa. The railroad company is further reported receiving bids on 1000 all-steel gondola cars, 500 stock cars, 500 refrigerator cars, 800 furniture cars, 500 fruit cars and 70 cabooses.

Birmingham Southern Railroad has ordered two freight locomotives from the American Locomotive Co.

Chesapeake & Ohio Railway is reported in the market for from 25 to 50 locomotives.

Chicago, Rock Island & Pacific Railway sold \$5,100,000 of 4½ per cent. equipment notes, covering 50 locomotives, 2 steel gasoline motor cars, 10 steel baggage cars, 10 steel combination passenger and baggage cars, 20 steel combination baggage and mail cars, 6 steel dining cars, 4 steel horse express cars, 500 furniture cars, 2500 box cars, 700 steel coal cars and 200 convertible ballast cars.

Norfolk Southern is reported about to buy 200 flat cars and 300 box cars.

St. Louis & San Francisco Railroad has ordered 3600 tons of structural steel thus: 800 tons from the American Bridge Co., Ambridge, Pa.; 1700 tons from the McClintic-Marshall Construction Co., Pittsburgh, and 1100 tons from the Virginia Bridge and Iron Works, Roanoke, Va.

Chicago, Rock Island & Pacific Railway is reported getting prices on 500 steel floor, drag bottom gondola cars of 50 tons capacity.

Southern Railway is reported in the market for 10 switching locomotives.

St. Louis & San Francisco Railroad, says a report, is getting prices on 20 locomotives.

The Harriman Lines, it is reported in manufacturing circles, will order nearly 250 locomotives for 1913 delivery, and is now receiving bids.

Chicago, Burlington & Quincy has ordered 1000 gondola cars from the Haskell

& Barker Car Co., Michigan City, Ind., and 1500 gondola cars from the American Car & Foundry Co., St. Louis.

Baltimore & Ohio Railroad is reported about to purchase eight postal cars.

Southern Pacific and other lines on the Pacific Coast are reported to have placed rail orders for 1913 amounting to 110,000 tons, some of which will be made at Trinidad, Col., by the Colorado Iron & Fuel Co., and others by the Illinois Steel Co., Chicago, and various Pittsburgh mills.

Illinois Central, says a report, has ordered 1600 tons of bridge steel from the Cambria Steel Co., Johnstown, Pa.

The Gadsden (Ala.) Car Works are reported to have broken their own record for a month by turning out 750 cars during November, and the force has been increased.

Norfolk & Western is reported to have built a coal car of 100 tons capacity and is now testing it in service. It has two six-wheeled trucks.

Virginia Terminal Co.

Concerning the Virginia Terminal Co., which, as recently reported, contemplates the construction of a new electric railway in Washington, D. C., under a bill introduced in the Senate of the United States, it is reported from there that the District of Columbia Commissioners have recommended to Congress that the bill be adversely reported, and that no action be taken in the matter until the bill for a public utilities commission is enacted, after which such commission could consider the need for such a railway extension and the terms under which it could be constructed. Those interested in the plan are Harry A. Wardman and A. A. Thomas of Washington, D. C.; J. G. Dudley, I. C. Taylor and E. F. Crawford of Virginia.

To Increase Capital Stock.

Official notice is given of a meeting of stockholders of the Nashville, Chattanooga & St. Louis Railway, to be held at Nashville, Tenn., February 12, to consider the question of increasing the capital stock by \$6,000,000 and thus make the total amount \$16,000,000. This, it appears, is the result of the recommendation of the committee appointed by the chairman of the company to prepare a plan for the retirement of \$6,300,000 of 7 per cent. bonds, and they report that the stock be offered to the shareholders at par.

An Eastern Texas Railroad Plan.

The Litcher & Moore Lumber Co., Orange, Tex., says that while the Gulf, Sabine & Red River Railroad cannot report any extensions during the year, it is relaying 14 miles of its line with 56-pound rails; also that the Orange Northeastern Railway is still in contemplation, which will take over the Gulf, Sabine & Red River Railroad and then build from Niblett's Bluff, a point on the Sabine River, into Orange.

Transfer of Public Utilities.

A report from Sedalia, Mo., says that E. F. Swinney of Kansas City and W. H. Powell of Sedalia, receivers of the Sedalia Light & Traction Co., have transferred its properties to Arthur E. Spencer of Joplin, Mo., who represents Henry L. Doherty, 60 Wall street, New York, which firm recently closed negotiations for the estate. The street railway, the gas plant and the electric-light plant constitute the properties.

Georgetown & Western Extension.

The Seaboard Air Line announces that the Georgetown & Western Railroad has extended its line to connect with the North & South Carolina Railway at Georgetown Junction. This extension is

37 miles long from Andrews, on the main line of the Georgetown & Western, via Warsaw, Morrisville, Nesmith, Henry, Hemingway, Johnsonville and Poston, S. C. It may also be remarked in connection with this announcement that the North & South Carolina recently finished an extension from Mullins to the crossing of the Pee Dee River at Allison's, where the connection between the two roads is made. This new work is all in South Carolina. A through schedule is arranged.

Another Interurban for Texas.

The South Texas Traction Co. of Houston, capital \$20,000, has been chartered to construct, acquire, maintain and operate railways, with either electricity, gas, gasoline, alcohol or naphtha for motive power, between any points in Texas. The incorporators are A. E. Hall, C. H. Hall and John A. Owen, all of Alvin, Tex., the other directors being H. T. Arnold of Houston, Tex., and Edward P. Allen of St. Louis, Mo.

MINING

To Develop Bauxite.

Manufacturers & Merchants' Association, Floyd County, Georgia, Rome, Ga., December 13.

Editor Manufacturers Record:

Major John H. Hawkins of this city, together with Mr. T. E. Grafton and F. R. Maddox, have applied for a charter to incorporate the John H. Hawkins Company for the purpose of mining and shipping bauxite and other aluminum ores. Major Hawkins started mining in the Hermitage district in this State over 30 years ago. Mr. Grafton has been very active in developing the halloysite deposits in Chattooga county, from which high-grade alum is now being manufactured in large quantities at Urbana, O. Mr. Maddox is a metallurgist and chemist, who is at the head of the Rome laboratory, and a recognized authority on ores of this character. These gentlemen and their associates control large deposits of bauxite, and will continue the very successful operations, heretofore conducted by Major Hawkins, on a large scale.

The incorporation and extension of this business means much to the industrial activity of Rome, and adds another testimonial to the growing development of this section.

Virginia Talc & Soapstone Co.

The Virginia Talc & Soapstone Co., recently chartered with \$150,000 capital stock, has organized and is developing a quarry near Verdierville, Va. It proposes to build mills for manufacturing quarried products. Its officers include Frank Haas, president; Waitman H. Conaway, vice-president; John R. Guckingham, secretary-treasurer; each of Fairmont, W. Va.; Chas. A. Williams, general superintendent, Washington, D. C.; Charles H. Hurkamp, assistant treasurer and general manager, Fredericksburg, Va.

For West Virginia Developments.

It is understood that Chas. M. Barnett, until recently president of the Chesapeake & Ohio Coal & Coke Co., Norfolk, Va., is organizing a company for the development of extensive coal areas in West Virginia.

A \$2,000,000 Coal Company.

The National Consolidated Coal Co., Belington, W. Va., has been chartered with \$2,000,000 authorized capital by Butler Kellogg of Belington, S. T. Zimmerman and C. B. Colborn of Philadelphia, Josiah Specht of Kanter, Pa., and F. Brande MacCarthy of Clayton, Del.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

Keystone Finishing Mills.

The Keystone Finishing Mills, Burlington, N. C., reported last week as to double capacity, will build a 90x60-foot two-story brick addition costing \$5000. This company has awarded contract for the new building to T. G. Nicholson of Burlington, and has awarded contract for additional new machinery to the Philadelphia (Pa.) Dyeing Machine Co. Its new equipment will increase its daily capacity from 1200 dozen pairs of hosiery per day, employing 70 operatives, to 2000 per day, requiring about 100 operatives.

The Cotton Movement.

In his report for December 13 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 104 days of the present season was 8,350,332 bales, an increase over the same period last year of 58,254 bales. The exports were 4,643,731 bales, an increase of 381,422 bales. The takings were, by Northern spinners, 1,058,387 bales, an increase of 8909 bales; by Southern spinners, 1,030,319 bales, an increase of 157,933 bales.

Will Install Looms.

The Fulton Cotton Mill Co., Athens, Ala., will build a 152x125-foot addition and install looms—80 40-inch and 48 36-inch. This company will manufacture flat duck, ply warp and filling duck, drills and osnaburgs. It now has 6032 ring spindles and 2896 twister spindles.

A \$100,000 Company.

The Maysville (N. C.) Cotton Mills Co., capital stock \$100,000, has been incorporated by John C. Bauman, A. J. Collins, J. D. Dudley and others. Mr. Bauman and associates were recently mentioned as to form a mill company.

Textile Notes.

The Flint Manufacturing Co., Gastonia, N. C., has completed the erection of a 54x28-foot warper and reelroom and added 1000 spindles.

The Priscilla Mills, Meridian, Miss., will increase capacity. This company has 5000 spindles, 100 knitting machines, etc., for manufacturing hosiery.

The Riverside Mills, Augusta, Ga., contemplates an expenditure of from \$100,000 to \$150,000 to erect an additional mill, install machinery and build warehouses.

The Canebrake Cotton Mills, Uniontown, Ala., will expend \$10,000 to build a one-story 50x40-foot warehouse, a machine shop and operatives' cottages, install humidifying equipment, etc.

The Social Circle (Ga.) Cotton Mills writes to the MANUFACTURERS RECORD: "We have not made any addition to our building, and the only machinery we are adding is 140 looms at the present time." This company was recently reported as to add 5000 spindles and 150 looms.

The Texas rice crop this year will be about 8,500,000 bushels, valued at \$9,000,000.

MECHANICAL

Protected Steel Sheet Piling in Levee Construction.

The large amount of construction work required in building and maintaining levees of our principal rivers and the

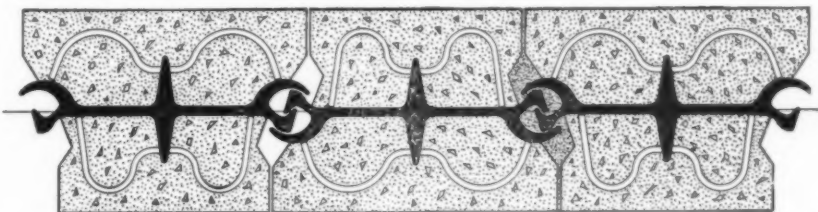
due to excessive hydrostatic pressure, poor material in the bank or underlying foundations, and to holes or openings made in the bank by crawfish or burrowing animals; and the foundations under the embankments, permitting the settlement or breaking down of the superstructure.

construction is capable of effecting a great reduction in the annual cost of repairs and maintenance along the more dangerous and exposed stretches of the levee system. The protection, construction advantages and ultimate economy from the steel-faced levee make this construction particularly desirable for long stretches

at these points. Such a wall further assists in retaining soft underlying material against movement due to the weight of the superstructure.

The design shown tends to eliminate the causes of failure, reduces the chance of danger and damage to the levee and the property which it protects, reduces the cost of maintenance and repairs to a minimum, and in these ways alone should show sufficient savings to warrant the expense for the installation of the steel. This is especially true at points where levees otherwise constructed would be continually exposed to dangerous conditions during floods.

The construction advantages and reduction of embankment and right of way are apparent. Taking all these factors into consideration, the steel-faced levee is believed to be practical and economical, especially in the more dangerous locations.



WATERTIGHT, PROTECTED AND REINFORCED SECTIONS OF LACKAWANNA STEEL SHEET PILING.

damages which frequently result from floods have attracted the attention of engineers and builders to the importance of this field for making improvements in the construction of levees, seawalls, embankments and similar structures.

The Lackawanna Steel Co., Lacka-

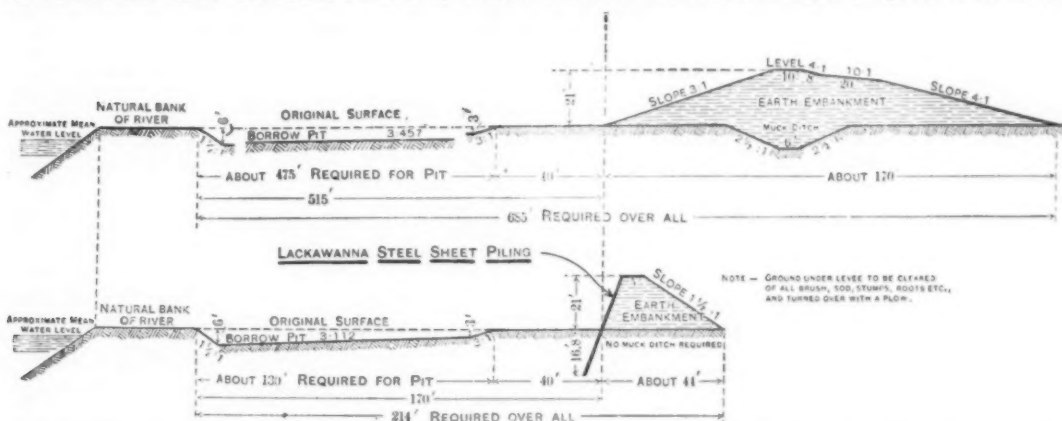
Levees have been constructed principally of earthen embankment, the material being taken from borrow pits. To make the embankments stable very flat slopes have been necessary on the faces of the bank. Such slopes must have a wide base, which, in connection with the

of river where the levee foundations are swampy, the filling material poor or insufficient and the location subject to strong wind and wave action.

Referring to the embankment details in the illustrations, the piling is shown as extending to a depth of 16 feet below the

Butt-Joint Nestable Metal Culverts.

The rapid developments and demand for metal culverts produced by the great increase in road construction has resulted in many forms of culverts being produced. One of the latest of these is shown in the accompanying illustration. This culvert is known as the "Butt-Joint Nestable," is shipped in knocked-down form, and is so nested that the stacks will not bind or spread, as the ribs are welded flush with the edges, thus making a shoulder, which holds half the section off the other when they are nested together. No holes are required in any part of the metal of the culvert in making it. The ribs are welded on by the electric welding process, and the space between the convex corrugations is used for the purpose of dropping metal keys therein to fasten the half sections together. When the sections are thus assembled a cylinder is formed with butt-joints, making a strong and stiff construction. When any weight is put upon this culvert it is taken up and borne by the



CROSS SECTION SHOWING COMPARISON OF EARTH LEVEE WITH ONE USING LACKAWANNA PROTECTED SHEET PILING.

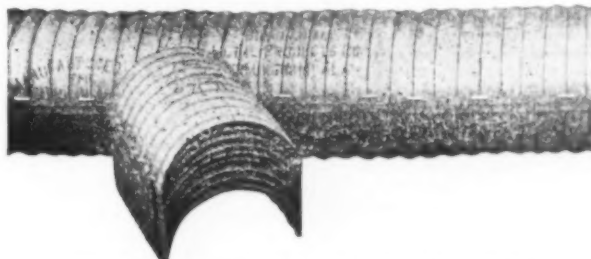
wanna, N. Y., has applied its sheet piling to this form of construction, and the advantages of such construction are shown in the accompanying illustrations.

Data on levee construction, maintenance, repairs and breaks show three

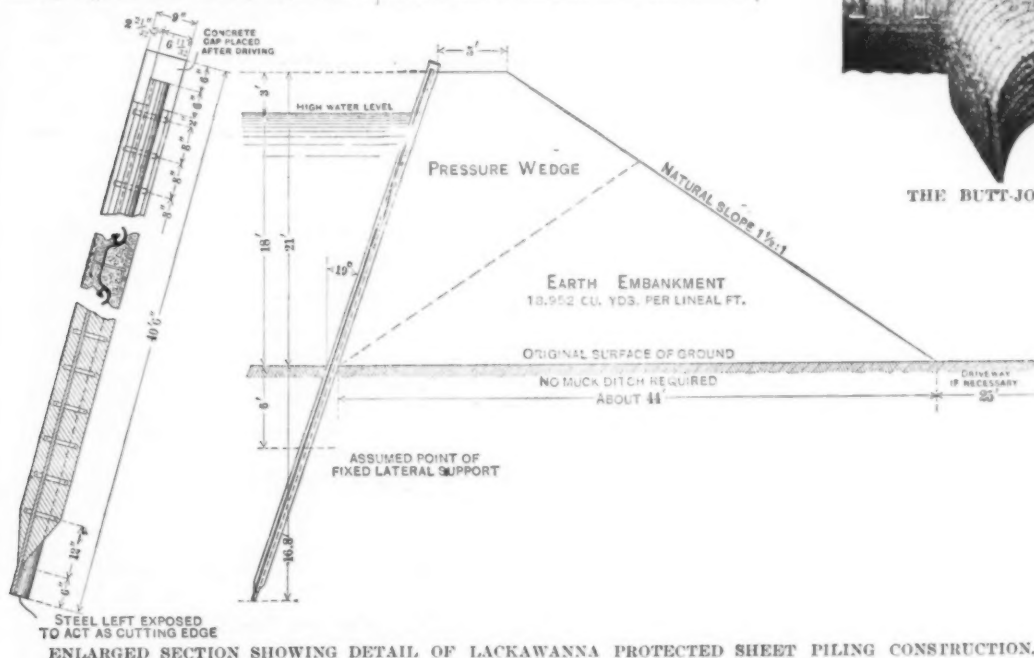
borrow pits, necessitates a comparatively wide and therefore expensive right of way.

These levees are generally built with a muck ditch underneath, this ditch being filled with a selected material, to form to some extent a sub-core or cut-off wall to

base of the levee, or below the original ground surface. Such depth is much



THE BUTT-JOINT NESTABLE METAL CULVERT.



ENLARGED SECTION SHOWING DETAIL OF LACKAWANNA PROTECTED SHEET PILING CONSTRUCTION.

principal causes of weakness, which are also direct or indirect causes of breaks or crevasses formed during flood periods.

These are overtopping, that is, flood waters reaching a height sufficient to flow over the top of the levee, cutting into the top and back slopes of the embankment; seepage or percolation of flood water through or under the levee embankments,

prevent water passage through the foundations below the base.

A levee containing a face wall of Lackawanna interlocking steel sheet piling protected by a concrete facing can be made proof against the weaknesses mentioned and can to a large extent eliminate the danger and damage caused by breaks during flood periods. Consequently, this

greater than the depth of the average muck ditch as built for a levee of this height, so the piling would eliminate the necessity of the muck ditch. The prolongation of the steel below the base of the levee and comparatively deep into the underlying foundation material is desirable, as an impermeable cut-off wall is formed to prevent the passage of water

entire cylinder, thus decreasing tendency to local injury.

It is stated by the manufacturer, the United States Sheet & Metal Culvert Co. of Birmingham, Ala., that the highest grade of metal is used in making the culvert; that every section of the culvert is similar to every other section, so that it will not under any conditions be assembled in a wrong way. Another advantage claimed for this culvert is that if it becomes stopped up it may be opened up from the top and cleaned without damage in any way to the culvert. The metal of which it is made is the "99.90 per cent. pure Birmingham-brand iron." The company has issued a booklet for distribution in which the various advantages, capacities and qualities of this culvert are illustrated and described.

Long staple cotton raised in Mecklenburg county, N. C., sold at Charlotte last Friday for 18½ cents a pound and the seed for \$1 a bushel. A farmer of Anderson county, S. C., has sold this year from ten acres of land 11 bales of long staple cotton with its seed for \$1000.

Construction Department

TO OUR READERS!

In order to follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "it is reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be shown on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year. On all advertising contracts in the Manufacturers Record for three months or longer a subscription to the Daily Bulletin is included for the contract period.

BRIDGES, CULVERTS, VIADUCTS

Ala., Birmingham.—Southern Railway (B. Herman, chief engineer maintenance of way, Washington, D. C.), Illinois Central Railroad (A. S. Baldwin, chief engineer, Chicago, Ill.), Birmingham Belt Railroad (J. H. Dougherty, general manager, Birmingham), and Walter G. Kirkpatrick, city engineer, approved plans and specifications and are prepared to invite bids on construction of viaduct at Twelfth Ave., Norwood; structure will be of white reinforced concrete; length, 140 feet; five spans; 22-foot clearance over railroad underneath structure, from which point to top it will measure 25 feet additional; width, 60 feet, including 40-foot space for street use (providing for double street car track), and two 10-foot sidewalks on either side; roadway to be solid slab of concrete, 30 inches thick; concrete pillars placed underneath at five points along 140-foot length; ornamental panning in approach pillars; estimated to require 1800 barrels concrete; cost about \$22,000; expected to complete arrangements for beginning construction by January 1. (Previously mentioned.)

Ala., Greenville.—Butler County Commissioners will construct two bridges on Forest Home Rd.; reinforced concrete; length 132 feet, 120 feet in the clear.

Ala., Troy.—Pike County Commissioners awarded contract to Knoxville (Tenn.) company at \$216 to construct steel bridge with concrete flooring over Conecuh River; W. S. Keller, State Highway Engineer, Montgomery, Ala. (Call for bids lately noted.)

Ala., Tuscaloosa.—Board of Public Works awarded contract to Finnell Contracting Co. at \$5087.50 to construct four reinforced concrete bridges; M. Findley, engineer. (Call for bids lately noted.)

Ga., Moultrie.—Colquitt County Commissioners will construct steel bridge across Ochlocknee River on Funston Rd.

Mo., Joplin.—City officials and representatives of Union Depot Co. and Southwest Missouri Railroad agreed upon general plans and specifications for viaduct on East Broadway across Kansas City bottoms; reinforced concrete; length, 1000 feet; width, 40 feet; roadway, 23 feet wide; street car track; sidewalk; H. A. Hatch of Chanute, Kan., division engineer for Union Depot Co.; C. B. Anderson, city engineer; Philip Arnold, chairman Viaduct Committee of City Council. (City recently reported to vote January 14 on \$50,000 bond issue to pay its share of constructing Broadway viaduct.)

Mo., Kahoka.—Wyconda Drainage District No. 1 of Clark county will construct seven steel bridges across main drainage ditch; W. B. Hazen, civil engineer, Courthouse, St. Joseph, Mo.; W. T. Rutherford, secretary, receives bids until December 14. (See "Machinery Wanted.")

N. C., Charlotte.—Mecklenburg County Commissioners awarded contract to Requarth Construction Co. of Charlotte at \$100 to construct 300-foot concrete bridge over Paw Creek at intersection with Dowd Rd. (Previously mentioned.)

N. C., Henderson.—Virginia & Eastern Carolina Railroad Co., J. M. Turner, president, Raleigh, N. C., will construct 175-foot bridge over Tar River.

Tenn., Chattanooga.—Nashville, Chattanooga & St. Louis Railway, H. McDonald, chief engineer, Nashville, Tenn., will slightly divert course of Chattanooga Creek, forming

Joyner; across Bowers Branch three miles from Burdette, 52 feet 3 inches long; at Ivor across Blackwater River, 439 feet 9 inches long; three near Newsoms, 52 feet 3 inches, 66 feet 4 inches and 93 feet 10½ inches, respectively; two at Story across Darden's Mill Stream, 64 feet 3 inches and 51 feet 9 inches, respectively; concrete substructure; alternate bids received for reinforced concrete abutments; bids received at office of County Clerk until December 23; P. St. J. Wilson, State Highway Commissioner, Richmond, Va. (See "Machinery Wanted.")

CANNING AND PACKING PLANTS

Ark., Berryville.—Berryville Canning Co., capital stock \$10,000, organized to establish cannery with daily capacity 20,000 cans; J. E. Reynolds, president; J. A. Bobo, secretary-treasurer.

Ky., Whitesburg.—Whitesburg Canning Co., organized by Sam T. Webb, Vanceburg, Ky., and others; will erect plant with daily capacity several thousand cans. (Recently noted.)

Md., Baltimore.—Canton Company of Baltimore, Commerce and Water Sts., will erect packing-house at Allicanna and Chester Sts.; five stories; 115x47 feet; brick and steel; interior of mill construction; composition roof; opens bids as soon as plans approved by Building Inspector; D. E. Foote & Co., Inc., 2023 Allicanna St., oyster and fruit packers, will operate plant.

Md., Havre de Grace.—S. J. Seneca Corporation, capital stock \$100,000, chartered by Stephen J. Seneca of Havre de Grace, Frank H. Jacobs and Lewis J. Williams of Belair, Md.

Md., Willoughby.—Cover Canning Co. incorporated by E. G. Thomas, Sydney Cover, William Mason Shehan and T. Hughlett

tal stock, to acquire coal and timber lands), states company has 35,000 acres; not contemplating early developments; Kentucky office address, care of Security Trust & Safety Vault Co., care of Forman & Forman, Lexington.

Ky., Louisville.—Jellico-Kanawha Co., capital stock \$5000, incorporated by C. J. Fegenbush, J. Winhorst and J. G. Hikes.

Ky., Middlebrook.—Yellow Creek Coal Co. increased capital stock from \$25,000 to \$10,000.

Va., Richlands.—Jewel Ridge Coal Co. contemplates enlarging plant.

West Virginia.—Charles M. Barnett, until recently president of Chesapeake & Ohio Coal & Coke Co., Norfolk, Va., is understood to be organizing company to develop New River coal property.

W. Va., Belington.—National Consolidated Coal Co., authorized capital \$2,000,000, incorporated by Butler Kellogg of Belington, S. T. Zimmerman and C. B. Colborn of Philadelphia, Pa.; Josiah Specht of Kanter, Pa., and F. B. MacCarthy of Wilmington, Del.

COTTON COMPRESSES AND GINS

Tex., Galveston.—W. L. Moody Cotton Co. will expend \$250,000 to erect cotton compress and warehouse; occupy three blocks; one story; concrete construction; Barrett specification roofing; contract let December 16; Green & Finger, Houston and Galveston, Tex., supervising architects; J. R. Fordyce, Little Rock, Ark., recently noted as engineer. (Previously mentioned.)

Tex., Hebron.—Farmers' Gin Co., capital stock \$300, incorporated by J. Hamlyn Morgan, H. R. Lord and J. H. Morgan.

Tex., Dawson.—Dawson Union Gin Co., capital stock \$14,000, incorporated by Will Bankston, J. O. Lawrence, T. F. Hill and others.

COTTONSEED-OIL MILLS

Mississippi.—Gulf Oil & Fertilizer Co., capital stock \$500,000, incorporated by F. D. Buck, M. M. Dugan and B. M. Grawl of Wilmington, Del.

Tex., Corpus Christi.—W. W. Jones and J. C. Baldwin will build cottonseed-oil mill and cotton compress, to cost about \$125,000; purchased 40-acre site; oil mill of 50 tons capacity and cost \$60,000; expect to order machinery for plants within 30 days; will organize company with \$125,000 capital stock. (Recently mentioned.)

DRAINAGE AND IRRIGATION

Ark., Lake Village.—J. B. Johnson, secretary Chicot Drainage District, advises of suspension of drainage construction plans until after January meeting of State Legislature; engineers completed survey, and cost estimate exceeded allowed amount. (Previous notices mentioned Willis E. Ayres, Randolph Bldg., Memphis, Tenn., as engineer; 370,000 acres in district; \$300,000 bond issue.)

Ark., Pine Bluff.—White & Watson of Pine Bluff have completed final survey for Waterloo Drainage District, north of Pine Bluff, containing 37,000 acres; about 25 miles of main drainage canal and 20 miles of lateral canals; estimated cost \$120,000; contract will soon be awarded.

La., Alexandria.—Horseshoe Drainage District No. 1 votes January 15 on \$12,500 bond issue to construct drainage system; I. W. Sylvester of Alexandria prepared plans; S. W. Day, president of District Commissioners. (Recently mentioned.)

La., Mound.—George S. Yerger, secretary-treasurer of Drainage District No. 2, Madison parish, advises relative to previously-noted work: About 48,000 acres to be drained; Morgan Engineering Co., Memphis, Tenn., engineer; date of opening drainage bids not set; T. C. Bedford, Thomaston, La., president of district.

La., New Orleans.—Realty Realization Co., George C. Sweeny, vice-president, People's Gas Bldg., Chicago, Ill., writes to Manufacturers Record confirming recently announced purchase of 45,000 acres (Alluvial City Land Co. and Alluvial Land Co. property) in St. Bernard parish; will reclaim by drainage and divide into farms for agricultural development; unconfirmed report from New Orleans states Realty Corporation will build five dredges, costing \$50,000, to begin construction of drainage system, and that John A. Kruse Engineering Co., New Orleans and Chicago, Ill., is engineer in charge. (Lately mentioned.)

PROPOSAL ADVERTISEMENTS

IN THIS ISSUE ARE

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southern boundary of Cravens yards; planned to confine creek within culvert and by fills to reclaim for its yard two or three acres; cut being excavated is from 40 to 50 feet wide, and will make course of creek comparatively in straight line from St. Elmo to river; culvert is to be of concrete, 200 feet long, 30 feet wide, and from top of arch to low-water level will be 48 feet; after water has been confined to culvert, top will be filled in and reclaimed land added to railway roads; estimated expenditure \$100,000.

Tenn., Park. R Station Knoxville.—City contemplates issuing \$20,000 of bonds to provide for Park Ave. viaduct. Address The Mayor. (See "Sewer Construction.")

Tex., El Paso.—El Paso County Commissioners issued \$7000 worth of bonds to construct bridges at Montoya and Vinton. Address County Commissioners.

Va., Bedford City.—Bedford county will construct recently-noted bridges, both over Goose Creek; one 188 feet long, 12-foot roadway, with concrete substructure, and 80-foot standard revised span and approach superstructure, two miles from Irving; one of concrete substructure with steel superstructure, 102 feet, with 12-foot roadway, two miles from Montvale; bids received at 12 noon December 21; plans and specifications on file at office of Clerk of Circuit Court, Bedford City, and at office of P. St. J. Wilson, State Highway Commissioner, Richmond, Va. (See "Machinery Wanted.")

Va., Courtland.—Southampton county will construct 11 steel bridges (lately mentioned) as follows: At Courtland across Nottoway River, 202 feet 6 inches long; across Tarrara Creek at Boykin, 60 feet long; over Princess Pond at Drewryville, 67 feet long; 328-foot span across Three Creeks four miles from

Henry, all probably of Easton, Md.; acquired cannery at Willoughby and will operate.

Tex., Texarkana.—Armour & Co. (main office, Chicago, Ill.) will build branch plant to cost \$50,000.

CLAYWORKING PLANTS

Md., Cardiff — Bricks. — Cardiff Vitrified Brick Co., capital stock \$75,000, incorporated by John S. Holt, Frank H. Jacobs and Lewis J. Williams.

Mo., St. Louis—Bricks, Tile, etc.—Hansen Products Co., capital stock \$50,000, incorporated by John H. Sears of St. Louis, Peter C. Hansen, W. A. Dunham and Benjamin T. Durfee of McAlester, Okla.

COAL MINES AND COKE OVENS

Ala., Walker County.—Panama Coal & Iron Co., Walter Moore, president, Birmingham, Ala., wires Manufacturers Record confirming statement regarding plans as follows: Purchased Warrior Coal & Land Co. holdings and added property totalling 35,000 acres in Black Creek basin on Warrior River, thus taking first step in development plans involving \$1,500,000; will open 30 drifts and equip for daily output 5000 tons coal; Frisco Railway now constructing branch railroad at cost of \$50,000 to Panama land, which adjoins that of Maryland Coal Co. and Empire Coal & Iron Co.; Panama property estimated to contain 80,000,000 tons; Mr. Moore is associated with capitalists not ready now to announce names; will incorporate for \$1,000,000 and later add \$500,000.

Ky., Lexington.—Chas. S. Ling, Lock Box 503, Franklin Bldg., Johnstown, Pa., secretary-treasurer Kypadel Coal & Lumber Co. (previously noted incorporated, \$500,000 capital

La., New Orleans.—Duluth (Minn.) capitalists are reported to have purchased several thousand acres St. Mary parish wet land for \$1,000,000, and Northern bankers and investors three tracts Louisiana wet land for \$3,000,000; will drain for agricultural development; engineer in charge, John A. Kruse Engineering Co., New Orleans and Chicago, Ill.

La., New Orleans.—W. G. Lackey of Mississippi Valley Trust Co., St. Louis, Mo., writes to Manufacturers Record: "I have no plans to develop wet lands in Louisiana." P. T. White of Cleveland Trust Co., Cleveland, O., writes to Manufacturers Record: "We do not contemplate development of any lands in Louisiana." (Messrs. Lackey and White were recently reported as to reclaim delta land.)

Mo., Benton.—Clyde A. Walb, LAGRANGE, Ind., contractor, is proceeding with drainage work in district No. 10 (or "Northcut Drainage District") in Scott county; improvements include removal of about 900,000 cubic yards earth from old Northcut ditch (formerly in No. 1 district), thus widening and deepening canal for about 20 miles; also construction of several miles of laterals; contract price \$65,000; work to be completed September, 1914; 26,000 acres in district.

N. C., La Grange.—Commissioners Drainage District No. 1 awarded contract to Southern Drainage & Construction Co. (C. Oettinger, Charles F. Harvey and others), Kinston, N. C., to drain Bear Creek Swamp; four miles of district have been drained and ten more miles still remain.

Okla., Tulsa.—Tulsa County Commissioners will expend \$1200 to drain seven square miles of (recently noted) Arkansas River bottoms seven miles southeast of Tulsa for farming purposes; construct main ditch with laterals; bids opened December 24; R. E. Curran, county clerk. (See "Machinery Wanted.")

Tex., Alvin.—Brazoria County Drainage District No. 9, H. M. Farrell, chairman, will construct system of drainage ditches, consisting of about 336,700 cubic yards excavation; bids received January 6; E. M. Leary, civil engineer. (See "Machinery Wanted.")

Tex., Alvin.—Galveston County Drainage District No. 3, Edward Rackow, chairman, will construct drainage ditches, consisting of 206,000 cubic yards excavation; E. M. Leary, civil engineer; bids received until January 6 at office of Judge H. Grass at Alvin; recently noted (under Galveston, Tex.) as voting to organize district and issue bonds. (See "Machinery Wanted.")

Tex., Beaumont.—Orange County Commissioners ordered election for January 7 to vote on \$30,000 bonds for draining 23,000 acres.

Tex., Galveston.—Commissioners' Court of Galveston County, John M. Murch, County Auditor, will construct drainage ditch and road work near Nadeau; about 1500 cubic yards earth to be removed; plans and specifications on file in County Auditor's office; bids received until December 23. (See "Machinery Wanted.")

Tex., Orange.—Orange county votes January 14 on \$30,000 bond issue to drain 30,000 acres marsh land in northern portion of county. Address County Commissioners.

Va., St. Bridex.—Board of Drainage Commissioners, R. R. Randolph, chairman, will construct drainage canal and subsidiary ditching in District No. 1; about 60,000 cubic yards; to be completed by December 1, 1913; bids opened January 13 at office of Norfolk County Treasurer, Portsmouth, Va. (See "Machinery Wanted.")

ELECTRIC PLANTS

Ala., Birmingham.—Tidewater Power Co. is, it is reported, having plans and specifications prepared for construction of electric plant on Warrior River near coal mines; contemplates transmitting electricity to Birmingham, Ensley, Pratt City, Thomas, Avondale, Shadyside, etc.; president, J. M. Dewberry. (Previously noted as proposed.)

Fla., Daytona.—Daytona Public Service Co. incorporated to furnish electricity, water, gas and ice; capital \$300,000; F. N. Conrad, president; E. F. Oates, vice-president; T. E. Fitzgerald, secretary-treasurer.

Fla., Ocala.—Lake Weir Light & Water Co. incorporated with capital \$25,000; R. L. Martin, president-treasurer; L. W. Duval, vice-president; D. S. Woodrow, secretary.

Fla., Winter Park.—City voted \$10,000 bond issue to install system of wires, meters, transformers, etc., for street and residence lighting; will use electricity from central station of Orlando Water & Light Co., Orlando, Fla., which company previously supplied equipment and electricity. (Recently incorrectly noted as "Fla., Orlando.")

Ga., Eatonton.—City will vote on bond issue for municipal ownership of electric-light plant and for improving water-works. Address The Mayor.

Ga., Springfield.—City voted \$10,000 bond issue to construct electric-light system and complete school building. Address The Mayor.

Ky., Middlesboro.—H. M. Bylesby & Co., Chicago, Ill., wires Manufacturers Record they have no interest in proposed Bell county \$1,000,000 electric plant mentioned in Daily Bulletin December 13.

Ky., Mt. Sterling.—Kentucky Utilities Co. plans extensive improvements to its electric light, power, railway, water and gas system at Mt. Sterling, Winchester, Shelbyville, Versailles, Somerset and Elizabethtown; is reported as to build \$1,000,000 electric plant at Winchester; W. P. Hackett, in charge at Mt. Sterling and Winchester, wires Manufacturers Record: "Have no official notice of such expenditure here at present." (Recently mentioned as filing \$5,000,000 mortgage.)

Ky., Somerset.—Kentucky Utilities Co., J. L. Waddle, manager, is reported to have ordered construction of power plant costing \$75,000; has filter and pumping station now under construction.

Ky., Winchester.—Kentucky Utilities Co. will, it is reported, build \$1,000,000 electric plant; W. P. Hackett, in charge at Winchester and Mt. Sterling, Ky., wires Manufacturers Record: "Have no official notice of such expenditure here at present." (See Mt. Sterling, Ky.)

Md., Baltimore.—Edison Illuminating Co. applied to Public Service Commission to increase capital stock by \$50,000 for betterments and extensions.

Miss., Louisville.—Louisville Light & Power Co., capital stock \$30,000, incorporated by F. E. Woodward and M. H. Woodward, Messrs. Woodward state they will hold all stock and are having cost plans and specifications made.

Mo., Marcelline.—City contemplates installing additional power equipment in electric-light plant; J. A. Nickell, superintendent.

N. C., Mt. Olive.—City contemplates enlarging electric-light plant and installing additional equipment. S. L. Oliver is manager.

N. C., Newbern.—City receives bids until January 7 (extended date) for constructing fireproof building for light and water plant; plans and specification to be furnished by each contractor submitting bid; F. T. Patterson, Clerk. (Recently noted.)

Okla., Ingersoll.—B. F. Blue, Clerk of Town Board, states town (recently noted as authorizing \$5000 bond issue) will construct four-mile transmission line from Cherokee, Okla., and install electric-light plant.

Tenn., Elizabethton.—Watauga Power Co. is reported as planning large improvements and extensions for additional service in connection with recently announced \$300,000 bond sale; transmits electricity to Bristol and Elizabethton; is extending transmission system to Johnson City, Jonesboro, Morristown and Greenville; has contract for electricity from Tennessee Eastern Electric Co.'s hydro-electric plant (previously detailed) now constructing on Chucky River.

Tenn., Nashville.—Nashville Street Railway & Light Co. will build substation on Lebanon turnpike for transmission of electricity to city from Ocoee and Great Falls plants; building will be three stories; contract for erection awarded.

Tex., Hereford.—Hereford Electric Light & Power Co. contemplates installing low-pressure turbine and condenser for exhaust steam, 15 miles bare copper wire, motors, transformers and two irrigation pumps for wells on farm eight miles distant.

Tex., Mineola.—Mineola Light & Ice Co., C. M. Dozier, manager, will install 30-kilowatt, 25-kilowatt or 40-kilowatt 2300-volt 60-cycle 3-phase second-hand unit, to be direct connected to turbine, simple side-crank engine; also will construct 10,000-gallon water tank on 100-foot tower and 500-ton ice-storage plant, insulated with cork; install set of 30-ton steam condensers, equip two ice tanks with compressed air or motor lifts and two vaults with compressed air or motor elevators.

Tex., San Saba.—San Saba Electric Light Co. incorporated to construct electric-light system.

Va., Richmond.—Richmond & Henrico Railway Co., C. S. Bailey, chief engineer, is said to have ordered plans and specifications for its proposed extension of electric-light and power facilities in connection with franchise recently secured.

W. Va., Warwood.—Brooke Electrical Co.

acquired building of Steel Fireproofing Co. in North Warwood; will remodel and equip as power-house; R. E. Walters is in charge. (Recently reported to have secured electric-light franchise.)

FERTILIZER FACTORIES

Ky., Louisville.—Southern Fertilizer Co., capital stock \$25,000, incorporated by E. C. Foltz, W. J. Drulen and H. C. Nall.

Md., Baltimore.—Eureka Chemical Co., capital stock \$5000, incorporated by Owen M. Lockwood (41 Central Savings Bank Bldg., 3 E. Lexington St.), James U. Spencer and Lee S. Meyer.

FLOUR, FEED AND MEAL MILLS

Md., Funkstown.—Antietam Mill Co. (recently noted (under "Lumber Manufacturing") incorporated with \$10,000 capital stock) organized with Mrs. Ida V. Keller president, J. E. Keller vice-president-treasurer, L. S. Keller secretary; operates mill of 150 barrels daily capacity. (See "Machinery Wanted.")

Md., Hyattsville.—Hyattsville Milling & Manufacturing Co. (recently noted incorporated, \$50,000 capital stock) will erect frame 35x75-foot building and install equipment costing about \$8000, with daily capacity 175 barrels flour and 20 tons feed; C. E. King, president and manager. (See "Machinery Wanted.")

N. C., Gastonia.—Ryne Roller Mill will install complete roller milling equipment, increasing daily capacity to 60 barrels flour, 200 bushels meal and 300 bags feed.

Okla., Shattuck.—Oklacereal Co. (recently noted incorporated, capital stock \$40,000) will manufacture wheat breakfast food; present address, Shattuck; may locate plant at Oklahoma City; J. E. Metts, president; J. A. Jenkins, vice-president; Joe W. Williams, secretary, treasurer and manager; will install mill machinery and some equipment of special construction. (See "Machinery Wanted.")

S. C., Greenville.—Acme Feed Co., capital stock \$5000, incorporated by John M. Dickson, W. P. White and J. C. DuPre.

Tex., Pearsall.—Pearsall Steam Laundry, C. H. De Vilbiss, president, will operate grist mill (recently noted) in connection with steam laundry. (See "Miscellaneous Enterprises" and "Machinery Wanted.")

Va., Rosslyn.—Rosslyn Milling Corporation increased capital stock from \$25,000 to \$50,000.

FOUNDRY AND MACHINE PLANTS

Ala., Birmingham.—Cars.—New company, of which S. P. Pryor, St. Louis, Mo., is reported president, is stated to have purchased Deatur Car Wheel Works with plants at Birmingham, Atlanta and Savannah, Ga.

Ala., Gadsden.—Pipe and Fittings.—Gadsden Pipe & Fittings Co. will rebuild plant on 9th St., previously burned; fireproof construction; cost \$15,000; will manufacture all kinds and sizes of cast-iron soil pipe and fittings.

Ala., Montgomery.—Cotton Choppers.—Denson Cotton Chopper Co., capital stock \$25,000, incorporated by G. C. Hamilton, J. R. Taylor and G. W. Denson.

Ga., Savannah.—Iron.—Savannah Iron Works, Box 95 (recently noted incorporated with \$5000 capital stock), will operate machine shop, etc.; W. E. Tuck, president; H. P. Cobb, vice-president; J. A. Pruitt, secretary-treasurer. (See "Machinery Wanted.")

La., Lake Charles.—Saw.—Gisch Saw Manufacturing Co. will establish plant to manufacture patented logging saws.

Md., Baltimore.—Plumbers' Supplies.—J. C. Eichman Manufacturing Co., Bush and Wilcombs Sts., awarded contract to Seybold & Elgenbrode to erect foundry building at Bonner Rd. and Walcott Ave.; one story; 25x35 feet; slate roof; hot-water heat.

Md., Baltimore.—Gray Iron.—Recently-noted purchase by P. Kennedy Foundry Co., Charles and Wells Sts., comprised complete gray-iron foundry equipment of Standard Roller Bearing Co., 50th St. and Lancaster Ave., Philadelphia, Pa.; plant to be removed from Philadelphia to Baltimore; Standard company (not Kennedy company) will specialize on manufacture of Rudge-Whitworth wire wheels for automobiles, using vacated foundry buildings (in Philadelphia) for this purpose.

Miss., Gulfport.—Machinery.—Clyde Engineering and Machinery Works, capital stock \$15,000, incorporated by J. C. Rogers, Robert Wallbillich and W. H. Tipplin.

Mo., St. Joseph.—Shoe Machinery, etc.—Specialty Shoe Machinery & Tool Co., James Bragg, president, will re-establish plant recently noted burned; purchase and install

equipment to manufacture shoe-nailing machines; machinery includes lathes, millers, drills, planer, shaper, grinders, etc.; will not erect building.

Mo., St. Louis.—Type, etc.—Monotype Typesetting & Foundry Co., capital stock \$600, incorporated by Joseph B. Mueller, William Thomson and others.

Mo., St. Louis.—Iron.—Manchester Iron Works, Gottfried Schmidt, president and manager (recently noted incorporated, \$10,000 capital stock), is successor to Gottfried Schmidt Iron Works; office and works, 3850 Chateaufort Ave.

S. C., Florence.—Plows.—Universal Plow Co. increased capital stock from \$25,000 to \$40,000. (Recently reported organized, etc.)

Tenn., Chattanooga.—Cotton Gins.—Southern Combing Gin Sales Co., capital stock \$50,000, incorporated by Carl White, G. N. Henson, R. B. Cooke, L. M. Gainer and G. F. Meehan to manufacture cotton gins, etc.

Tenn., Knoxville.—Smelters, etc.—North Carolina-Partridge Smelting Co., capital stock \$300,000, and Partridge Metallurgical & Manufacturing Co., capital stock \$1,000,000, incorporated by Allen R. Partridge of Partridge Hot Blast Smelter Co., Empire Bldg., and others. (Mr. Partridge previously reported as planning manufacture of smelting and cupola furnaces, etc.)

Tex., South Houston.—Machinery.—Lincoln Machine Co., capital stock \$50,000, incorporated by E. E. Savage, South Houston; W. F. Carothers, Houston, Tex., and G. S. Rumbaugh of Greensburg, Pa.

W. Va., Charleston.—Tools.—Ohio Tool Works, Columbus, O., and Auburn, N. Y., will build plant on eight-acre site; issued \$125,000 bonds in connection with proposed Charleston plant.

GAS AND OIL DEVELOPMENTS

Ala., Jasper.—Pennsylvania Oil & Gas Co., P. M. Shannon, president, Birmingham, Ala., will drill five test wells for gas.

La., Shreveport.—Oil Field Gas Co., capital stock \$100,000, incorporated; Eugene G. Palmer, president; H. L. Hellerin, vice-president; Wheeler Shropshire, secretary-treasurer.

Okla., Dougherty.—Dougherty Fuel & Supply Co., capital stock \$15,000, incorporated by T. F. Paine, J. S. Wright, R. S. Starns, W. I. Ellithorp and Z. J. Wood.

Okla., Oklahoma City.—Reserve Gas Co., capital stock \$1,000,000, incorporated by Hugh L. Harrell, Ben F. Harrison and King L. Fitzpatrick of Oklahoma City, William F. Troth, L. E. Warren and Thomas A. Wallace, 60 Wall St., New York.

Okla., Oklahoma City.—Oklahoma Oil Operating Co., capital stock \$10,000, incorporated by J. M. Condit, M. H. English and W. R. Cruse.

Okla., Oklahoma City.—Hub Petroleum Co., 618 American National Bank Bldg., will drill two wells; C. G. Kiskaddon, manager in charge, Tulsa Hotel, Tulsa, Okla. (Recently noted incorporated with \$15,000 capital stock by George E. Black and others.)

Okla., Pawhuska.—Rio Grande Oil Co., capital stock \$10,000, incorporated by C. E. Vandevort of Pawnee, Okla.; John L. Bird and A. W. Hurley of Pawhuska, Okla.

Okla., Poteau.—Leflore County Gas & Oil Co. organized by New York and Eastern capitalists; acquired properties of Poteau Ice & Light Co.; proposes to further develop gas fields and to drill additional wells with view to supplying Fort Smith, Ark., and other cities.

Okla., Purcell.—Abernathy Oil Co., capital stock \$5000, incorporated by John L. Abernathy, Charles Wallace and James McCaleb.

Tex., Quannah.—Quannah Oil & Gas Co., capital stock \$15,000, incorporated by B. F. Robbins, T. D. Frixell and Ben J. Brothers.

Okla., Tulsa.—Long Green Oil Co., capital \$12,000, incorporated by Paul Konz and E. B. Huston of Independence, Kans., and Arthur Newlin of Tulsa.

Okla., Tulsa.—Archibald Campbell is reported to have arranged sale of Midcontinent field oil properties to British bankers; properties said to include 5050 acres of oil land and 210 wells with daily average production 320 barrels oil; reported purchase price \$1,500,000.

Okla., Tulsa.—Security Oil Co., capital \$60,000, incorporated by L. A. Wilson, El Reno, Okla.; T. J. Hattman and E. A. Ross of Tulsa.

Okla., Tulsa.—Midnight Oil Co., capital stock \$16,000, incorporated by J. E. Crosbie, E. M. Rose and H. Steinberger.

Texas.—Southern Reserve Gas Co., capital

stock \$7,500,000, incorporated by J. M. Satterfield, W. P. Forkum and W. P. Carrow of Dover, Del.

Tex., San Saba.—Mercury Oil & Gas Co. is making additional development; drilling deep well.

Tex., Sinton.—Company is being organized to drill well on lands of D. Odem east of Sinton to secure flow of oil or gas.

W. Va., Buckhannon.—Shuttleworth Gas Co., capitalized for \$10,000, incorporated by U. I. Jackson, C. I. Holden, J. Ira Jenkin and others.

W. Va., Clarksburg.—Reese Oil & Gas Co., capitalization \$25,000, incorporated by Melvin G. Sperry, E. B. Dieson, George L. F. Daffour, A. B. Reese and C. Earl Israel.

W. Va., Parkersburg.—Laird Oil Co., capital stock \$32,000, incorporated by John F. Laird and R. E. Bills of Parkersburg, J. H. Lullinger, H. E. McGinnis and W. R. Meserivs of Harrisville, W. Va.

W. Va., Weston.—Another Oil & Gas Co., capitalization \$10,000, incorporated by L. H. Ahner, Louis Bennett, H. M. Bennett, C. A. O'Hara and J. S. Vandervort.

W. Va., Wheeling.—City & Suburban Gas Co. incorporated; acquired properties of Virginia Oil & Gas Co.; C. D. Junkins, treasurer, advises that business will be conducted at present along established lines; plans for future development and extensions not yet perfected.

ICE AND COLD-STORAGE PLANTS

D. C., Washington.—Chapin-Sacks Manufacturing Co., 1st and M Sts. N. E., will repair ice-storage building at 1st and Patterson Sts. N. E.; estimated cost \$6000.

Ga., Americus.—Atlantic Ice & Coal Corporation has plans and specifications for ice and cold-storage plant; daily capacity, 75 tons ice; estimated cost, \$85,000. (Recently mentioned.)

Ga., Augusta.—Elks Ice & Coal Co., capital stock \$20,000, incorporated by J. Frank Ellis, T. S. Raworth and C. I. Bryans.

Miss., Louisville.—Louisville Light, Power, Water, Coal & Ice Co. incorporated by F. E. Woodward and others. (See "Electric Plants.")

N. C., Winston-Salem.—Carolina Ice & Coal Co., capital \$125,000, incorporated by Fred A. Fogle, A. L. Butner, Sam F. Vance and C. D. Ogburn of Winston-Salem and W. L. Payne of Richmond, Va.

S. C., Greenville.—Carolina Public Service Corporation, C. S. Campbell, general manager, Columbia, S. C., will, it is reported, purchase plant of Greenville Ice & Fuel Co. for \$165,000.

Tenn., Knoxville.—Polar Ice Co. increased capital stock from \$25,000 to \$250,000; has been distributing agency and now contemplates manufacturing.

Tex., Bremond.—Bremond Electric Light Co. contemplates installing ice plant.

Tex., Mineola.—Mineola Light & Ice Co., C. M. Dozier, manager, will build 500-ton ice-storage plant, insulated with cork; install set of 30-ton steam condensers, equip two ice tanks with compressed air or motor lifts and two vaults with compressed air or motor elevators. (See "Electric Plants.")

Tex., Yoakum.—Yoakum Ice Co. and Yoakum Machine Shops and Garage incorporated with \$60,000 capital stock by W. L. Orth and M. F. Orth; will continue established plant; ice company will be under management of L. A. Orth and machine shops and garage under management of Morris L. Price.

IRON AND STEEL PLANTS

Ark., Hot Springs.—Railway Ties.—Bank of United States Steel Railway Tie Co., capital stock \$50,000, incorporated with A. Lemoine, president; R. E. L. Maxey, vice-president; F. W. Vaughan, secretary; M. Kinney, treasurer.

Tex., Rusk.—Iron Furnace.—Skinner & Sons, lessees of Lanham furnace, will overhaul plant and resume manufacturing iron; build 75 dwellings for employees; blow in furnace within next 60 days.

Va., Glen Wilton.—Iron Furnace.—Princess Furnace Co. progressing with rebuilding blast furnace recently damaged by cave-in of shell; has rebuilt stack entirely above mantle and installed new stove, downcomer, two dust catchers, etc.; improvements slightly increase capacity to 100 tons daily; blow in about January 1.

LAND DEVELOPMENTS

Ark., Little Rock.—Arkansas Colonizing Co., capital stock \$10,000, incorporated by Ralph E. Bennett (president), Robert M.

Foster, Jr., James E. Block and Mrs. E. A. Coe.

Fla., Jacksonville.—West View Cemetery Association incorporated with capital \$50,000; E. H. Bauer, president; F. J. Acosta, vice-president; George L. Reynolds, treasurer; J. N. Wilson, secretary.

Fla., Tarpon Springs.—D. F. Conoley purchased 60 acres land and will improve.

Fla., Tarpon Springs.—Peter O. Knight purchased 80 acres land and will improve.

Ga., Houston County.—A. G. Rhodes and C. J. Haden, Atlanta, Ga., purchased 3000 acres in Houston county; Mr. Haden advises that land will be subdivided into small farms, and, with farmhouses erected, will be sold to settlers.

La., Pointe-a-la-Hache.—Myrtle Grove Planting Co., T. S. Wilkinson, president, contemplates increasing capital stock to \$650,000.

Ga., Valdosta.—Georgia State Pecan Co., capital stock \$300,000, incorporated; will plant 300 acres in pecans and 10 acres in nursery stock.

La., Lake Charles.—Dever's Realty Co., capital stock \$100,000, incorporated to promote hunting preserve and stock ranch; proposed to erect clubhouse; J. L. Dever, president; C. B. Richard, vice-president; John L. Wasey, secretary-treasurer.

La., New Orleans.—Louisiana Development Co. incorporated with W. E. Howett, president, and J. B. Lamore, treasurer, both of St. Louis, Mo.; purchased 2340 acres sugarcane land three miles south of New Orleans for \$45,000, and will develop; petition Louisiana authorities to issue reclamation bonds; offices in New Bank of Commerce Bldg., St. Louis.

La., New Orleans.—Albert M. Andrews, acting for Gilbert J. Vincent, purchased three squares of ground in Sixth District for \$18,500; property adjoins tracts owned by Emma Realty Co. and New Orleans Investment Co., and, it is stated, three subdivisions, embracing 15 squares, will be developed together; contracts have been awarded for constructing sidewalks, gutters and curbs; all dwellings erected will be furnished with city water, gas, electricity, etc.

Md., Baltimore.—Overbrook Development Co., capital stock \$50,000, incorporated; will develop at present 16 acres of land on Wilkens Ave. extended for residence purposes; Frank Primrose, president; Wm. A. McLeran, treasurer; W. S. Chambers, secretary; office address, 21 W. Saratoga St.

Md., Odenton.—Dr. W. D. Bigelow, assistant chief of United States Bureau of Chemistry, Washington, D. C., purchased 832 acres of land near Odenton, and will establish experimental farm to scientifically cultivate rare plants and vegetables, especially those requiring swampy or damp ground.

Miss., Nueces.—R. H. Peck, superintendent of Brown's Business College, St. Louis, Mo., is reported to have purchased farm land two miles from Nueces and intending to clear land for planting 80 acres to pecan trees and setting out 2000 orange trees.

Miss., Natchez.—Natchez District Development Co., C. A. Ransom, manager, Natchez Hotel Bldg., is proceeding with proposed colonization plans, which have included subdivision of large plantations into small farms; is also, by contract with Catholic Colonization Society of Chicago, subdividing 4000-acre tract into 40-acre farms, to be occupied by Catholic colonists. (Previous notice included organization with \$250,000 capital stock and establishment of demonstration farm.)

Miss., State Line.—State Line Development Co., capital stock \$40,000, incorporated by A. M. Rayl, Maggie Rayl, H. H. Perry and Della Perry.

Mo., St. Louis.—Watuna Realty & Construction Co., capital stock \$35,000, incorporated by Jesse W. Leigh, Harry W. Leigh and William F. Fahey.

Mo., St. Louis.—Cedars Realty Co., capital stock \$2000, incorporated by J. W. Griffin, K. L. Wiese and O. E. Wolf.

Mo., St. Louis.—Montesano Springs Corporation incorporated by William A. Chestnut, Arthur Mittelberg, Henry Obelm, Alfred H. Annan and James Solari, to operate amusement and health resort, etc.; capital stock \$25,000.

N. C., Halifax.—Bullock Land & Supply Co., capital stock \$100,000, incorporated; will develop 2588 acres of land three miles from Halifax for residence purposes; erect tenement-houses to cost \$2000 to \$3000; John D. Cooper, president; Hope Bullock, vice-president; S. S. Parham, treasurer; W. P. Gholsen, secretary; main office, Henderson, N. C.

N. C., Wilmington.—Jocelyn Company, capital \$100,000, incorporated by William L.

Smith, J. V. Grainger, W. L. Smith, Jr., and Clayton Smith.

Okla., Okmulgee.—Okmulgee Development Co., capital stock \$10,000, incorporated by L. S. Skelton, J. A. Price, G. W. Mabrey, D. E. Kennedy and others.

Okla., Tulsa.—Crosbie Heights Co., capital stock \$9000, incorporated by J. E. Crosbie, J. I. Gillespie and J. E. Wade.

S. C., Cedar Spring.—W. N. Willis, civil engineer, is supervising improvements on grounds at Cedar Spring; plans provide for complete change of entrance drive from public highway to grounds and of walks from building through oak grove to springs.

Texas.—Texas Irrigation Products Co., capital stock \$250,000, incorporated by J. F. Lang, H. B. Oursley and F. W. Winter of Pittsburgh, Pa.

Va., Norfolk.—Beautifying Commission will submit plans to City Council for beautifying Smith's Creek; estimated cost \$28,000; W. T. Brooke, City Engineer.

Va., Richmond.—Highland Park Development Corporation, capital \$30,000, chartered; B. F. Smith, president, Richmond; A. G. Dalton, vice-president, Highland Park, Va.; C. H. Midlin, secretary-treasurer, Chicago, Ill.

W. Va., Charleston.—Plaza Realty Co., capital stock \$100,000, incorporated by J. B. Crawley, P. J. Crawley, J. B. Prairie, F. C. Major and T. W. Legg.

W. Va., Keyser.—Appalachian Land Co., W. C. Grimes, president (recently noted incorporated, capital stock \$10,000) organized to deal in farm, timber, coal and orchard lands; especially interested in orchard lands in locality of Mineral county.

W. Va., Huntington.—Lonesome Pine Oil Co., 422 9th St. (recently noted incorporated, capital stock \$50,000, by B. W. Foster and others), will not open machinery bids before April. A. B. Brode is in charge of field matters.

LUMBER MANUFACTURING

Ark., Caddo Gap.—Charles T. Abeles of Little Rock, Ark., secured estimates on Ke lands near Caddo Gap; if land is purchased, will build small mills to cut timber.

Ark., Texarkana.—Tall Timber Lumber Co., capital stock \$250,000, incorporated; W. J. Buchanan, president; Randolph G. Pack, vice-president; James G. Boyce, secretary-treasurer.

Fla., Gainesville.—Bock Lumber Co. will probably rebuild mill recently burned.

Fla., Pensacola.—Florida Export Co., capital stock \$10,000, incorporated to manufacture, export and import timber, etc.; H. S. Merwin, president; J. E. Dolbear, secretary; G. W. Owen, treasurer.

Ga., Cedartown.—Hightower Planing Mills invites bids to rebuild drykiln; 18x60 feet. (Recently reported burned.)

Ga., Macon.—Case-Fowler Lumber Co., capital stock \$100,000, incorporated by W. W. and H. C. Fowler and others.

Ky., Covington.—Bond Lumber Co., capital stock \$300,000, incorporated by Frederick A. Thayer, Benjamin H. Sincell, Richard E. Sliger, William L. Thomas and Edward H. Sincell, all of Oakland, Md.

Ky., Whitesburg.—Nelson and C. Smith of Smith Lumber Co., Barbourville, Ky., purchased several thousand acres timber land on Colly Creek, a few miles from Lexington & Eastern Railroad; will develop; install lumber and stave mill.

La., Forest Hill.—Giles Bros. will build hardwood sawmill; daily capacity, 35,000 feet; operate as Giles Bros. Hardwood Lumber Co.

Md., Funkstown.—Antietam Mill Co., recently noted incorporated, operates flour mill. (See "Flour, Feed and Meal Mills.")

Miss., Enterprise.—Muse & Bros., Enterprise, are purchasers of land recently noted sold by N. C. Moore.

N. C., Durham.—Cary Lumber Co. will install additional new machinery in additional building nearing completion; reported to expend \$5000 for new equipment.

Tex., Texarkana.—Texarkana Lumber Co. increased capital stock from \$10,000 to \$40,000.

Va., Norfolk.—Nottingham & Wrenn Company will rebuild wood mill recently burned.

W. Va., Bluefield.—Bailey Lumber Co. (recently reported incorporated with \$50,000 capital stock) elected E. L. Bailey president and A. G. McCue vice-president; will erect building for plant and office; brick; length 300 feet; portion to be three stories and portion two stories.

W. Va., Huntington.—Sliger-Roettger Lumber & Manufacturing Co. (recently noted incorporated, \$25,000 capital) elected Walter Sliger president, F. J. Roettger vice-presi-

dent-general manager, T. W. Sliger secretary-treasurer; continues operation of plant with daily capacity 40,000 feet.

METAL-WORKING PLANTS

Md., Baltimore.—Tin Cans.—Continental Can Co., recently chartered with capitalization \$17,500,000, organized with Thomas G. Cranwell, Baltimore and Syracuse, N. Y., president; merges former Continental Can Co., Export & Domestic Can Co. and Standard Tin Plate Co.; factories at Syracuse, Chicago, Cannonsburg (Pa.) and Baltimore; recently advised Manufacturers Record of plans to enlarge Baltimore plant, including following: Build three-story 106x200-foot concrete construction factory costing about \$400,000; awarded \$100,000 contract for concrete piling to Raymond Concrete Piling Co. of New York, Baltimore office at 408 Munsey Bldg.; other details obtainable from N. M. Loney, engineer, and W. F. Dutton, purchasing agent, 447 W. 14th St., New York. (Recently mentioned.)

S. C., Greenville.—Metal Culverts, Pipe, etc.—Birmingham Metal Products Co., Birmingham, Ala., contemplates establishing \$25,000 plant in Greenville or Spartanburg, South Carolina.

MINING

Ala., Gadsden.—Iron.—W. F. Stowers of Attalla, Ala., will drill for iron ore in Wills Valley.

Ala., Oxmoor.—Iron.—Self-Fluxing Ore & Mining Co., capital stock \$1,500,000, organized by R. N. McDonough, Brown-Marx Bldg., Birmingham, Ala., and associates; will develop Shannon Shades Valley iron-ore property recently tested with diamond drill; proposes to sink shafts and equip mine for ultimate daily output 2000 tons iron; has 1535 acres three miles below Oxmoor; is reported to invest \$75,000 to \$100,000 for openings and plant. (Mr. McDonough and others recently reported as purchasing this land.)

Ark., Powhatan.—Zinc.—Powhatan Lead & Zinc Mining Co., S. M. Neely, president, Memphis, Tenn., plans organizing new company to continue Powhatan zinc developments, on which \$115,000 has been expended.

Ga., Macon.—Granite.—Georgia Quincy Granite Co., capital stock \$500, incorporated by D. W. Jeter, R. C. Corbin and J. A. Reynolds.

Ga., Rome.—Bauxite, etc.—John H. Hawkins Company applied for charter to mine bauxite and other aluminum ores; incorporators are Maj. John H. Hawkins of Rome, T. E. Grafton and F. R. Maddox.

La., Shreveport.—Stone.—Louisiana Casto Stone Co., capital stock \$30,000, incorporated by W. E. Morris and S. W. Tullos to establish plant to manufacture cast stone.

Md., Cockeysville.—Marble.—Beaver Dam Marble Co., capital stock \$150,000, incorporated by William H. Matthal (manager National Enameling & Stamping Co., 1901-1919 Light St.), Louis Muller, J. Clarke Matthal, William C. Rouse and E. Asbury Davis. (Mr. Matthal recently reported to have purchased Beaver Dam Marble Works and to improve and operate on enlarged scale.)

Mo., Sarsco.—Lead and Zinc.—Carthage Metal & Milling Co., Carthage, Mo., will build 200-ton concentrating plant.

Mo., Joplin.—Lead and Zinc.—Abigail Mining Co. contemplates building 200-ton concentrating plant; John S. Van Winkle of Danville, Ky., is interested.

N. C., Hendersonville.—Gold.—Roberts & Reynolds of St. Louis, Mo., purchased interest in Canadian Southern Mine Co.; gold mines on Forge Mountain, Henderson county; will undertake development; contract calls for \$25,000 and pledge to operate mines and continue 700-foot tunnel constructed by Canadian company.

N. C., Greensboro.—Gold, etc.—Guilford Mining Co., authorized capital \$50,000, incorporated by Abraham Horwitz, Rebecca Horwitz and E. F. Paschall.

Okla., Peoria.—Tripoli.—Oklahoma Tripoli Co., J. C. Smith, secretary, New York, purchased 120 acres land in Ottawa county containing tripoli deposits and will develop; establish \$25,000 plant with daily capacity 100 tons; at first operate by steam and later probably by electricity.

S. C., Gaffney.—Tin.—D. D. Nichols and associates will develop tin deposits; have begun placer mining.

Tenn., Chattanooga.—Warrenfells Mining Co., capital stock \$21,000, incorporated by A. P. F. J., W. H., V. B., M. K. and R. Warrenfells and V. E. Johnson.

Tex., Lueders.—Copper.—Lueders Copper Mines Co. purchased land for \$10,000; will sink shaft and begin operations.

Va., Verdierville-Talc, Soapstone, etc.—Virginia Talc & Soapstone Co. completed organization with Frank Haas, president; Waitman H. Conaway, vice-president; John R. Buckingham, secretary-treasurer; each of Fairmont, W. Va.; Charles H. Hurkamp, assistant treasurer and general manager, Fredericksburg; Charles A. Williams, general superintendent, Washington, D. C.; developing quarry near Verdierville; proposes to erect and equip mills for manufacture of quarry products; location of proposed mills not fully decided. (Recently reported incorporated with \$150,000 capital stock under Fredericksburg.)

MISCELLANEOUS CONSTRUCTION

La., Tallulah-Levee.—Fifth Louisiana District Levee Board, J. T. McClellan, president, awarded contract through State Board of Engineers to J. M. Sullivan to construct Cottage Home emergency levee; contain 45,000 cubic yards earth. (Call for bids lately noted.)

La., New Orleans-Levee.—Levee Commissioners of Orleans Levee District will construct following work right bank Mississippi River: Stanton to Beka revetment, length 6000 linear feet; 200,000 feet of packy cypress lumber; bids received until December 27 at office of Board of State Engineers, 213 New Orleans Court Bldg., New Orleans, La.; Leigh Carroll, president. (See "Machinery Wanted.")

Md., Baltimore-Pier.—Board of Awards awarded contract to William L. Miller of Boston, Mass., at \$208,704.27 for concrete piles for Broadway recreation pier, lately reported.

Miss., Bay St. Louis-Seawall.—City Bond Commission, Joseph T. Cazenueve, chairman, adopted plans by Bert Vinton of Pascagoula, Miss., for seawall; plan calls for tongue-and-groove concrete piling, steel reinforced, 20 inches face, to be sunk to depth of nine feet; apron to be built on outside of wall; ordered that bids be invited.

Miss., Hazlehurst—Monument.—United Daughters of Confederacy awarded contract for erection of Confederate monument; height 30 feet; cost \$5000.

N. C., Southport-Pier, etc.—Wilmington, Brunswick & Southern Railway, Z. W. Whitehead, president, Murchison Bank Bldg., Wilmington, N. C., has received bids for construction of pier and pierhead. (Recently noted.)

Tex., Fort Worth—Subway.—Representatives of five railroads conferred with City Commissioners relative to construction of subway to connect Third Ward with business section; proposition is for railroads to pay for subway and city for approaches and damage to abutting property; estimated that city's appropriation will aggregate \$200,000; contract for subway will be prepared and submitted to Commission January 14.

Tex., Galveston—Bulkhead.—Galveston county will bulkhead approach to beach at Thirteenth-Mile La. according to plans and specifications in office of John M. Murch, County Auditor; bids received until 11 A. M. December 30. (See "Machinery Wanted.")

MISCELLANEOUS ENTERPRISES

Ala., Montgomery—Publishing.—Capital City Publishing Co., capital stock \$25,000, incorporated; Walter S. Richardson, president; William C. Wakefield, vice-president; J. L. Swint, secretary-treasurer.

Fla., Jacksonville—Transportation.—Kissimmee & Okeechobee Transportation Co., capital stock \$20,000, incorporated; J. W. Ward, Jr., president, Floral City, Fla.; H. P. Osborne, vice-president, and D. H. McMillan, secretary-treasurer, both of Jacksonville.

Fla., Jacksonville—Printing, etc.—Consumers' Manufacturing & Printing Co. incorporated with \$25,000 capital; C. J. McBride, president; S. E. Guess, vice-president; W. E. Williams, secretary-treasurer.

Fla., Marianna—Publishing.—Jackson Publishing Co., capital \$2500, incorporated; John Milton, Jr., president; H. C. Sparkman, vice-president; Amos E. Lewis, secretary-treasurer.

Fla., St. James City—Steamboat Line.—Florida & West Indian Transportation Co. incorporated with \$50,000 capital; A. W. Knowles, president; K. B. Harvey, vice-president-general manager; Jessie Satchwell, secretary.

Fla., Tampa—Laundry.—Mrs. Julia Frieble will erect two-story laundry building to cost \$5000.

Ga., Atlanta—Engraving.—J. P. Stevens Engraving Co. will erect building; five stories; fireproof; cost \$20,000; site 40x100 feet.

Ky., Greensburg—Tobacco.—Loose Leaf Warehouse Co. contemplates increasing capital stock from \$15,000 to \$25,000; proposes to build redrying plant and storage building.

Ky., Louisville—Elevator.—Kentucky Public Elevator Co. will build five-story concrete tower at 1100 14th St. to cost about \$6000.

Ky., Louisville—Publishing.—Louisville Courier-Journal Company will remodel building at 4th and Green Sts.; cost \$15,000.

La., New Orleans—Carpet Cleaning.—Sanitary Carpet Cleaning Co., 1701 Toledano St., will erect two buildings; receives bids until noon December 20 for framework for both buildings and for 12,000 square feet galvanneal-iron work.

Md., Baltimore—Publishing.—Baltimore Trades Unionist incorporated by Charles Jackson and Mark Jackson (both of Jackson & Jackson, 102 E. Lexington St.), and Charles W. Lemkuhl.

Miss., Charleston—Publishing.—Herald Publishing Co. will purchase and take over building, plant, etc., of Mabel C. and J. R. Oakes; J. R. Oakes, president; E. D. Dinkins, vice-president; P. T. Rainey, secretary. (Recently noted incorporated with \$10,000 capital stock.)

Miss., Columbia—Laundry.—F. B. Frahlch of Indiana will establish steam laundry; H. A. Mobley of Columbia will be manager.

Mo., Kansas City—Construction.—Flower-ree-Campbell Construction Co., capital \$5000, incorporated. V. W. Flowerree, president, to conduct general contracting.

Mo., St. Louis—Machinery.—Bargain Machinery & Investment Co., capital stock \$3000, incorporated by Oliver R. Burkhardt, Edward C. Teuscher and Edward C. Hogan of East St. Louis, Ill.

N. C., Beilhaven—Hardware.—F. L. Volive Hardware Co., capital stock \$100,000, incorporated by J. D. Bell, A. L. Bell and F. L. Voliva.

N. C., Salisbury—Cleaning and Dyeing.—Clyde Ennis of Salisbury and J. H. Trevor of Key West, Fla., will establish Salisbury Dyeing and Cleaning Works at 202 S. Main St.; fur storage in connection.

Okl., El Reno—Publishing.—El Reno Publishing Co., capital stock \$15,000, incorporated by John E. Kavanaugh, Harve Roland of El Reno and M. E. France of Alva, Okla.

Tenn., Chattanooga—Advertising.—Franklin Advertising Co., capital stock \$10,000, incorporated by J. B. Danforth, W. C. George, David H. Bloom, K. D. Davis and Samuel L. Boddy.

Tenn., Johnson City—Printing.—E. M. Slack awarded contract for repairing two-story brick building, occupied by Johnson City Daily Staff, recently reported burned.

Tenn., Knoxville—Publishing.—Curtis B. Johnson Publishing Co., capital \$100,000, incorporated by Curtis B. Johnson, David C. Chapman, Hugh M. Johnston, Frank M. Haynes and Sam M. Johnston.

Tenn., Memphis—Hardware.—Warner-Shelby Hardware Co., capital stock \$10,000, incorporated by I. L. Higgins, H. Y. Reed, R. S. Williams and others.

Tex., Austin—Abattoir.—City's budget for 1913 includes recommendation for abattoir to cost \$25,000. Address The Mayor.

Tex., Galveston—Steamship Line.—Texas & Gulf Steamship Co., capital stock \$100,000, incorporated by W. A. Guyton, C. H. Moore, R. Waverly Smith and others.

Tex., Palestine—Abattoir.—Dan Le Roe will build sanitary abattoir.

Tex., Pearsall—Steam Laundry.—Pearsall Steam Laundry, C. H. De Villibis, president, will erect plant recently noted; 24x50 feet; ironclad; construction by owners; cost of machinery (mainly purchased), \$2500; also operate grist mill in connection with laundry. (See "Machinery Wanted.")

Tex., Yoakum—Printing.—W. L. Johnson awarded contract to erect one-story brick building to be occupied by Yoakum Daily Times as printing office.

Tex., Yorktown—Printing.—Louis Stieber will erect two-story building; Yorktown News will occupy lower floor. (See "Association and Fraternal Buildings.")

Va., Albemarle—Dry Prizing.—Brunswick Union Dry Prizing Co., capital \$50,000, incorporated; James W. Matthews, vice-president, Charlie Hope, Va.; C. T. Allen, secretary-treasurer, Cochran, Va.; R. L. Chambliss, president, Rawlings, Va.

Va., Remington—Hardware.—Caskie Hardware Co., capital stock \$10,000, incorporated with W. A. Caskie president, J. M. Caskie secretary-treasurer, Clarence Caskie, general manager.

Va., Richmond—Printing.—News-papery Supply Co., capital stock \$25,000, incorporated to

operate printing plant; has contracted with Richmond Virginian to print that newspaper for term of years; offices in office of Virginian, 7th St. near Franklin; R. S. Barbour, president, South Boston, Va.; W. H. Vincent, vice-president, Capron, Va.; J. W. Hough, secretary-treasurer, Norfolk, Va.

Va., Wachapreague—Fish Pound.—Wachapreague Fish Pound Co., capital stock \$10,000, incorporated with E. J. Smith president, G. F. Stiles secretary-treasurer.

W. Va., Fairmont—Construction.—Hawkins Co., capital \$30,000, incorporated by William E. Hawkins, J. Guy Hawkins, William C. Hawkins and others.

MISCELLANEOUS PLANTS

Ala., Birmingham—Tires and Rubber.—Blacklock Tire & Rubber Co., capital stock \$2000, incorporated; Kate Blacklock, president; Mary H. Bostick, vice-president; H. Blacklock, secretary-treasurer-general manager.

Ala., Montgomery—Drugs.—Interstate Chemical Co. of Alabama, authorized capital stock \$100,000, incorporated with P. D. Christian of Rome, Ga., as president; E. M. Hampton, Atlanta, Ga., vice-president; Robt. M. Collins, Jr., Montgomery, secretary; is branch of Interstate Chemical Co. of Georgia, Rome, Ga.

Fla., Jacksonville—Paint.—J. S. Jackson, 438 St. James Bldg., and associates contemplate establishment of plant to manufacture paint.

Fla., Jacksonville—Cigars.—Gonzales & Sanchez Cigar Co. acquired site on Hogans Creek, from Forsyth to Adams St., on which to build cigar factory.

Fla., Pensacola—Coffee Roasting.—James McHugh has plans for coffee-roasting plant, etc. (See "Stores.")

Fla., St. Petersburg—Gas.—City, W. F. Divine, Clerk, is prepared to grant gas franchise; bids received by City Council until 7.30 P. M. February 8. (See "Machinery Wanted.")

Fla., Tampa—Cigars.—F. Garcia & Bros., 1114 Garcia Ave., receive bids until 10 A. M. December 20 for erection of two-story brick building recently noted; plans and specifications in office of A. L. Shaw, architect, 508½ Franklin St.

Ga., Thunderbolt—Aeroplanes.—Baton Aero Co., Capt. Matthew A. Batson, manager, Springfield, Mo., purchased site for aeroplane factory, hangars and practice field; plans manufacturing hydro-multi aeroplanes.

Ga., Atlanta—Auto Tops.—C. H. Johnson is erecting building to be leased to Atlanta Auto Top & Trimming Co. for factory; structure of reinforced concrete; two stories; 75x100 feet.

Ga., Atlanta—Medicine.—Dr. George Brown Chemical Co., capital stock \$25,000, incorporated by F. M. Jack, G. Brown and A. C. Brown.

Ga., Brunswick—Paper Mill.—Yaryan Naval Stores Co. contemplates erection of paper mill; cost \$400,000, with investment to be increased (later) to \$1,000,000.

Ky., Lexington—Oil Refinery.—Charles C. Stoll Oil Co., Louisville, Ky., contemplates establishing branch plant.

Ky., Louisville—Paint.—Progress Paint Manufacturing Co., capital stock \$10,000, incorporated by John S. Strassel, L. F. Brown, G. W. Green and F. N. Wall.

Ky., Louisville—Central Production Co., authorized capital stock \$17,000, incorporated by Oscar Brockman, Arthur Brockman and John Miller.

Ky., Louisville—Shoes.—C. H. & B. Shoe Co., capital stock \$35,000, is being organized by James F. Grinstead, Asa, J. L. and J. D. Harned, Hardin Wilson and others to establish shoe factory.

Md., Baltimore—Paper Boxes.—Brandon estate will erect building to be occupied by J. M. Raffel Company, Heath, Clarkson and Race Sts., as paper-box factory; three stories; 58x70 feet; mill construction.

Md., Baltimore—Brewery.—George Brehm & Son, Brehm's La., near Belair Rd., awarded contract to Lorenz Schoenlein & Son, 2216 Boyer St., Baltimore, to erect addition to bottling plant; one story; 40x100 feet; brick; cement floor; shipping platform with concrete floor; plans by Theodore Wells Pietsch, American Bldg., Baltimore. (Recently mentioned.)

Md., Baltimore—Boiler-house.—Consolidated Gas Electric Light & Power Co., Lexington and Liberty Sts., has plans for boiler-houses to be erected at its plant, foot of Leadenhall St.; 50x75 feet; one story; reinforced concrete; to be of sufficient size to accommodate two 450-horse-power boilers; Benj. F. Bennett Building Co., 123 S. Howard St., and

Consolidated Engineering Co., 288 Emerson Bldg., included among contractors estimating.

Md., Baltimore—Gas.—Consolidated Gas Electric Light & Power Co., Lexington and Liberty Sts., filed petition with Public Service Commission to issue \$747,000 bonds; this is part of issue in treasury, and will pay for improvements and extensions completed between December 1, 1911, and October 31, 1912.

Md., Baltimore—Bakery.—Sporrer Bread Co., capital stock \$25,000, incorporated by Wm. A. Sporrer, Frederick M. Sporrer and Wm. Jerome Nelly; continues bakery at 648 N. Fulton Ave.

Md., Baltimore—Novelties.—Crescent Novelty Co., capital stock \$4000, incorporated by Edward J. Rossiter, 7 W. Randall St.; James J. Hartlove and Samuel E. Shaw.

Md., Baltimore—Chemicals.—La Rue Chemical Co., recently noted incorporated with \$25,000 capital stock), 1212 Pennsylvania Ave., will operate chemical plant; Dr. Abell A. Wilson, president; Dr. Paul Brown, vice-president; Clark Kerr, secretary; Mrs. M. C. Wilson, treasurer. (See "Machinery Wanted.")

Md., Baltimore—Candy.—Eli Sheetz, 214 N. Liberty St., will build additional story to three-story building at 214 N. Liberty St.; awarded contract to G. Walter Tovell, 1126 N. Eutaw St., Baltimore.

Md., Cumberland—Brewery.—German Brewing Co. will enlarge bottling plant.

Mo., Joplin—Folding Umbrellas.—Marian Folding Umbrella Co., capital \$15,000, incorporated by W. W. Browne, M. T. Marian and Joseph Stein.

Mo., St. Louis—Myra Realty Co. will remodel factory building at 309 S. 1st St.; cost \$4000.

Mo., St. Louis—Brewery.—Mutual Brewing Co. purchased site, 400x200 feet, at Forest Park Blvd. and Boyle Ave.; plans prepared for bottling plant and storage-house and for enlarging ice plant; will also erect apartment-house for employees.

Mo., St. Louis—Sant Sales & Manufacturing Co. incorporated by Joseph O. Chenoweth, Jacob E. Meeker and Charles E. Blair; capital stock \$10,000.

Mo., St. Louis—Trousers.—Korrekkt Pants Manufacturing Co., Simon N. Hecht, president, 900 Washington Ave., will install sewing machines, motors, etc., to double present capacity. (Recently noted.)

Mo., St. Louis—Electric Heaters.—Minhot Electric Manufacturing Co. incorporated by Henry G. Cady, John T. Brown, Charles F. Pevolt and others; capital stock \$50,000; will manufacture electric heaters invented by Mr. Cady.

Mo., St. Louis—Films.—United Feature Film Co., capital stock \$50,000, incorporated by O. T. Crawford, J. M. Dubbs and N. L. Sunley.

N. C., Walkertown—Tobacco.—N. D. Sullivan Company incorporated by W. N. Poin-dexter, N. S. Booe and C. D. Ogburn.

Okl., Cushing—Oil Refinery.—Consumers' Refining Co., care of Shaffer-Smathers Oil Co., Chicago, Ill., is reported as to build oil refinery costing \$500,000.

Okl., Okmulgee—Window Glass.—Okmulgee Window Glass Co., capital \$100,000, incorporated by C. F. Lutes, L. S. Shelton, Okmulgee, and B. E. Labow, Fredonia, Kans.

Okl., Oklahoma City—Puncture Cure.—Vulko-Fiberene Co., 512 W. Main St. (recently noted incorporated, \$5000 capital stock), will rent building and install made-to-order mixers and vats for manufacturing puncture cure for pneumatic tires; A. S. Perry, president and manager; James F. Keechen, vice-president; J. J. Perry, secretary-treasurer.

Okl., Woodford—Asphalt.—Hurley Asphalt Co., capital \$50,000, incorporated by J. E. Parker of Woodford, W. B. Harley and F. M. Brooks of Fort Worth, Tex.

S. C., Columbia—Shirtrwaists.—Henry Diamond of L. Diamond & Sons, Boston, Mass., is reported as considering establishment of branch plant to manufacture shirtrwaists.

S. C., Florence—Scales and Fixtures.—Florence Scale & Fixture Co., capital stock \$5000, incorporated by A. Bequest and E. D. Lide.

S. C., Greenwood—Beverage.—Greenwood Pepsi-Cola Co., capital stock \$5000, incorporated by John McKissick and J. A. Bank.

Tenn., Chattanooga—Clothing.—Palmer-Sowers Company will increase capital stock and enlarge plant.

Tenn., Nashville—Bakery.—American Baking Co., Birmingham, Ala., will establish plant.

Tenn., Nashville—Elastic.—Alexander Ben-

nle & Co., capital stock \$250,000, incorporated to continue present plant.

Tex., Dallas—Shirts.—Dallas Custom Shirt Co., capital stock \$10,000, incorporated by D. T. Finly, F. M. Eislerberger and John J. O'Malley.

Tex., Fort Worth—Silos.—McClure Company of Texas will build silo factory on Diamond Hill, North Fort Worth; two buildings—one brick, 50x200 feet, and other steel, 50x150 feet; cost \$25,000; plans prepared.

Tex., Houston—Brewery.—American Brewing Association will build concrete addition to plant costing \$12,000.

Tex., Paris—Gas.—Texas Power & Light Co., Dallas, Tex., will make various improvements to plant of Paris Light & Power Co., lately reported acquired; planned to erect gasholder and install generating apparatus with daily capacity 200,000 feet gas; purchased site on Sherman St. fronting 1100 feet on railroad tracks and embracing five or six acres. (Company recently noted under "Electric Plants.")

Tex., San Antonio—Ice-cream.—Crispi Manufacturing Co. opened bids to erect fireproof building; D. A. Crispi, president; F. J. McDonald, secretary; M. H. Crown, treasurer. (Recently noted incorporated with \$10,000 capital stock.)

Va., Alexandria—Receptacles.—Infallible Moth & Dustproof Receptacle Co., capital \$75,000, incorporated; C. A. Hawley, president, The Rochambeau; C. M. Gearhart, secretary; S. W. Bowles, treasurer—all of Washington, D. C.

Va., Richmond—Organs.—C. F. Winder Organ Co. has plans prepared for organ factory; temporary plant on 33d St.

W. Va., Grafton—Glass.—Tygart's Valley Glass Co. contemplates improvements to plant; build addition on east end of building, 60 feet wide and full length of present structure; also addition on southwest corner of present building to contain bins for glass-making material; bins to have concrete floor in front, with mixing-room at extreme end, where steel drum, to be operated by small gas engine, has been erected.

W. Va., Huntington—Ultramarine Blue.—Standard Ultramarine Co., O. T. Frick, president, Tiffin, O., will install special machinery for manufacturing ultramarine blue pigment; erect plant; construction by company. (Recently noted to establish plant to cost \$100,000.)

MOTORS AND GARAGES

Ky., Lexington—Garage.—J. B. Haggins will erect garage and automobile salesroom; awarded contract to Congleton Lumber Co.

Md., Baltimore—Garage.—City contemplates building garage for city automobiles; H. K. McCay, City Engineer.

Mo., St. Louis—Automobiles.—T. J. Moss Motor Car Co., capital stock \$10,000, incorporated by T. J. Moss, J. W. Fristoe and E. J. Dykstra.

S. C., Rock Hill—Garage.—Jones Motor Co. purchased site for garage to be probably 100x50 feet.

Tenn., Nashville—Garage.—E. Nicks will build \$10,000 garage; 51x170-foot structure; three stories high on 60-foot front and two stories high on 110-foot rear; brick construction, white glazed brick front; plate-glass show windows, elevators to second floor, office finished in hardwood, etc.

La., Crowley—Automobile Repair Shop.—Martin Motor Car Co., 607 E. 6th st., will open proposals in about 40 days for recently-noted building; 37x75 feet; fireproof; brick and concrete block front; plans by L. H. Andrus, Crowley.

Tex., San Antonio—Automobiles.—Motor Car Supply Co., capital stock \$5000, incorporated by C. P. Guthrie, Will Harrison, H. B. Lyne and James Harrison.

Tex., Waxahatchie—Garage.—Sims-Thomson Motor Car Co. will erect garage; one story; brick; 100x200 feet.

Tex., Yoakum—Garage.—Yoakum Machine Shops and Garage, capital stock \$60,000, incorporated by W. L. Orth and M. F. Orth. (See "Ice and Cold-storage Plants.")

Tex., Yoakum—Garage, etc.—Yoakum Machine Shop and Garage organized with W. L. Orth president, M. Price secretary-treasurer; will continue established business. (Recently noted incorporated with \$10,000 capital stock.)

Va., Harrisonburg—Garage, etc.—Harrisonburg Garage, J. N. Garber, president, leased building and will operate garage and repair shop; machinery purchased. (Recently reported incorporated with \$15,000 capital stock.)

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Tex., Dallas—Union Terminal Co., F. G. Pettibone, president, and representatives of city adopted plans by Jarvis Hunt, Chicago, Ill., for union depot and terminal station previously noted. (See "Railway Stations, Sheds, etc.")

Tex., De Leon.—Texas Central Railroad, W. A. Webb, general manager, Waco, Tex., will, it is reported, build terminal facilities.

ROAD AND STREET WORK

Ala., Mobile.—Mobile County Board of Revenue will surface 10 miles on St. Stephens (or Citronelle) Rd.; bids received until 12 noon December 23; county to furnish material; Charles Dew, County Engineer. (See "Machinery Wanted.")

Ala., Selma.—City contemplates paving Lauderdale and Dallas Sts.; plans not made; J. L. Clay, Mayor.

Ark., Cabot.—Allen Griffin, road overseer of Lonoke county, Lonoke, Ark., will supervise construction of road from Cabot to El Paso, Ark., via Mountain Springs; A. J. Walls, County Judge, Lonoke, Ark.

Fla., Clearwater.—City, R. T. Daniel, Clerk, will construct proposed concrete sidewalks on Fort Harrison Ave., Cedar St., Osceola Ave. and on boulevard Plaza Park addition; bids opened January 7. (See "Machinery Wanted.")

Ga., Jesup.—Wayne County Commissioners contemplate engaging engineer to supervise construction of roads and improving present highways; plans said to include purchase of road machinery.

Ky., Pineville.—Bell county votes March 4 on \$500,000 bond issue to construct macadam roads. Address County Commissioners. (Amount increased from \$350,000 lately stated.)

La., Shreveport.—City will pave Wall St. from Marshall to Market Sts. with bitulithic; about 2500 yards; bids received December 24; L. H. Baker, secretary-treasurer. (See "Machinery Wanted.")

Md., Centerville.—Queen Anne's county will construct 1.02 miles State aid highway upon or along Finger Board Rd. between Crumpton and Chester River; also 0.49 mile upon or along Stevensville Rd. from railroad crossing southerly, and 0.78 mile upon or along Millington Rd. between Crumpton and Millington; County Commissioners receive separate bids on each section until noon December 31. (See "Machinery Wanted.")

Miss., Oxford.—Lafayette County Commissioners awarded contract to E. W. Jordan of Birmingham, Ala., at about \$100,000 to construct 25 miles of road; about 15 miles to be surfaced with gravel macadam; standard reinforced concrete bridges and culverts. (Call for bids lately noted.)

S. C., Columbia.—John McNeal, City Engineer, and R. C. Keenan, Councilman-Superintendent of Streets, submitted report to City Council recommending paving of about 35 blocks, or 3½ miles, of streets during 1913.

S. C., Spartanburg.—City will expend \$90,000 on street and cement sidewalk paving; specifications asked with bids; latter to be filed by January 13; J. H. Shores, superintendent of streets. (See "Machinery Wanted.")

Tenn., Ashland City.—Cheatham county voted \$100,000 bond issue for road improvements. Address County Commissioners.

Tex., Carthage.—Young Men's Business League is interested in securing construction of sidewalks.

Tex., Dallas.—Municipal Commissioners awarded contract to Roach-Manigan Paving Co. of Memphis, Tenn., to pave Carroll Ave. from Ross to Swiss Ave. with Bernudez asphalt concrete; estimated total cost, \$17,934.89; also awarded contract to Texas Bitulithic Co. of Dallas to pave Germania St. from Ross to Swiss Ave.; estimated cost, \$13,586.79.

Tex., Denison.—City awarded contract to Murphy-Moulton Company to pave Mirick Ave. with asphalt macadam, including curbing and guttering; 22,000 square yards; \$15,000 available; A. W. Acheson, Mayor. (Call for bids lately noted.)

Tex., El Paso.—City Council has ordered paving of 14 streets and 2 alleys in downtown district; estimated cost, \$20,000. (Other work recently mentioned.)

Tex., El Paso.—City will pave streets in Government Hill section, expending \$40,000; awarded contract to Texas Bitulithic Co. of Dallas, Tex.; C. E. Kelly, Mayor. (City recently reported to have voted \$50,000 bond issue for street improvements.)

Tex., El Paso.—City will pave Diaz Ave. from Mundy Ave. to West Boulevard; improvements to include grading, parking, etc.; Herbert Nunn, City Engineer.

Tex., Falfurrias.—Brooks county votes December 21 on \$45,000 bond issue for road construction. Address County Commissioners.

Tex., Fort Worth.—Tarrant County Commissioners engaged J. S. Travilla, St. Louis, Mo., as engineer in charge of constructing main roads of county under \$1,000,000 bond issue; plans cardinal and sub-cardinal roads; probably 12 to 20 feet wide; begin construction next May. (Bonds previously noted voted.)

Tex., Greenville.—City voted \$75,000 bonds for additional street paving; each property owner on streets to be paved will pay one-third cost, and this indicates total expenditure of \$225,000 for street paving. Address The Mayor.

Tex., Houston.—Harris County Commissioners appropriated \$9000 for paving with asphalt Harrisburg Rd. from Milby St. to eastern city limits.

Tex., Houston.—City will grade and pave Anita St. from west line of Main St. to east line of Baldwin St. with bitulithic pavement; bids received by Dan C. Smith, City Secretary, December 30; H. B. Rice, Mayor. (See "Machinery Wanted.")

Tex., Houston.—City will pave Louisiana St. from Congress Ave. to Berry St.; creosoted wooden block paving from Congress to Capitol Ave., asphalt from Capitol to Pease Ave., and bitulithic from Pease Ave. to Berry St.; width of street from Congress to Gray Ave. will be 45 feet, and from Gray Ave. to Berry St. 35 feet; H. B. Rice, Mayor.

Tex., Port Lavaca.—Road District No. 2 of Calhoun county will vote on \$135,000 bond issue for road construction. Address County Commissioners.

Tex., San Angelo.—City will construct 40,000 square yards paving in residence portion of city; W. T. Bishop, Mayor; J. J. Goodfellow, City Engineer; bids invited. (See "Machinery Wanted.")

Tex., San Antonio.—City will construct about 7800 square yards concrete paving on San Pedro Ave.; bids received until noon December 30 by Fred Fries, City Clerk. (See "Machinery Wanted.")

Tex., Yoakum.—City is reported as to have let contract for constructing 60 miles of cement sidewalks. Address The Mayor.

Tex., Yoakum.—Yoakum precinct of De Witt county votes February 5 on \$100,000 bond issue for road construction. Address County Commissioners, Cuero, Tex. (Recently mentioned.)

Va., Norfolk.—Board of Control awarded contract to Continental Public Works Co. for 55,500 square yards asphalt paving in old Fifth, Ninth and Tenth wards; also for 18,000 feet curbing; W. T. Brooke, City Engineer. (Call for bids lately noted.)

SEWER CONSTRUCTION

Fla., Live Oak.—City awarded contract to A. C. Brooks Company of Birmingham, Ala., to construct sewer system; 9½ miles pipe sewers from 8 to 15 inches diameter with sewage-disposal plant; \$45,000 bond issue available; H. S. Jaudon Engineering Co., engineer, Box 582, Savannah, Ga. (Call for bids lately noted.)

Ga., Savannah.—Drainage Commission, J. A. G. Carson, chairman, will submit plans and specifications to Mayor and Aldermen for extension of house and storm drainage system so as to include every section of city; estimated cost, \$991,000; proceeds from \$600,000 bond issue at present available. (Previously mentioned.)

La., New Orleans.—Executive Committee recommended bid of Mitchell-Borne Company at \$497,048.60 to construct lined and covered canal in Broad St. and to build siphon under Old Basin canal; F. S. Shields, secretary Sewerage and Water Board. (Call for bids lately noted.)

La., New Orleans.—Executive Committee recommended bid of Etta Contracting Co. of New Orleans at \$91,359 to excavate open drainage canals; F. S. Shields, secretary Sewerage and Water Board. (Call for bids lately noted.)

Md., Baltimore.—City will construct lateral sewers in District No. 8, sanitary contract No. 107; will require 35,000 linear feet vitrified pipe house connections and 39,000 linear feet vitrified pipe sewer, 8 to 24 inches diameter; Board of Awards receives bids until December 23; Charles England, chairman Sewerage Commission. (See "Machinery Wanted.")

Md., Catonsville.—Neighborhood Improvement Association is interested in plan to

construct sewer system; disposal plant to be at Westport; R. B. Morse, sanitary engineer State Department of Health, 6 E. Franklin St., Baltimore, Md., submitted plans.

Miss., Meridian.—Mayor and Board of Councilmen awarded contract to P. C. Powers & Son, Memphis, Tenn., at \$3000 to construct six-foot concrete culvert on Magnolia Rd. between Elm and Cherry Sts., with all pipe inlets, manholes and accessories; C. W. O'Leary, City Clerk.

N. C., Lillington.—City votes January 15 on \$15,000 bond issue to construct sewer system and water-works. Address The Mayor.

N. C., Mt. Olive.—Mt. Olive Sewerage Co., capital stock \$25,000, incorporated by N. N. Royall, W. C. Steele and others.

N. C., Wilmington.—City, F. F. Pillett, City Engineer, asks bids, received until 12 noon January 14, for construction of about 36 miles vitrified, concrete and cast-iron sewers, 8 to 24-inch diameter, complete with appurtenances; plans, etc., with City Engineer. (See "Machinery Wanted.")

N. C., Winston, postoffice Winston-Salem.—City, R. I. Dalton, Mayor, is asking bids on construction of proposed (about) three miles vitrified clay sanitary interceptor with appurtenances. (See "Machinery Wanted.")

Okla., Eufaula.—City awarded contract to Nick Peay Construction Co. of Little Rock, Ark., at about \$125,000 to construct sewer system and water-works. (See "Water-works.")

Okla., Sapulpa.—City voted \$75,000 bonds to complete and extend sewer and water system. Address The Mayor.

S. C., Spartanburg.—City will expend \$20,000 on sewer construction; specifications at office of J. H. Shores, superintendent of streets; bids to be filed by January 13. (See "Machinery Wanted.")

Tenn., Park, R. Station, Knoxville.—City contemplates issuing \$20,000 of bonds to provide for trunk sewer east of Spruce St., Park Ave. viaduct and additions to school building. Address The Mayor.

Tex., Austin.—City votes January 15 on \$100,000 bond issue for purchase of Austin Sewerage Co.'s system; P. W. Powell, superintendent streets and public property. (City recently reported as having awarded contracts amounting to about \$55,000 for sewer construction.)

Tex., Calvert.—City will construct sewer system to cost \$25,000; work includes 331 feet 4-inch, 19,075 feet 6-inch, 5914 feet 8-inch and 3495 feet 10-inch vitrified sewer pipe, Y's and specials, etc.; bids received December 30 for materials and construction; H. P. Johnson, City Secretary; Fountain-Shaw Engineering Co., engineer in charge, 506 Southwestern Life Bldg., Dallas, Tex. (See "Machinery Wanted.")

Tex., El Paso.—City will construct sewer system in Government Hill section; also install water and gas system; expenditure, \$14,000; C. E. Kelly, Mayor. (City recently reported to have voted \$150,000 bond issue for sewer-system improvements.)

Tex., Carthage.—Young Men's Business League is interested in securing sewer system.

Tex., Houston.—City Council adopted plans and specifications for storm sewer to be laid in Fourth Ward; work consists of 3400 feet 66-inch, 900 feet 8-foot, 5550 feet of 9-foot and 1550 feet 10-foot sewers; 46 manholes, 160 catch-basins and 4200 linear feet catch-basin connections; F. L. Dormant, City Engineer; H. B. Rice, Mayor. (See "Machinery Wanted.")

W. Va., Berkeley, Spring.—Town Council contemplates voting on bond issue for installation of sewerage system and filtration plant; Board of Trade invited engineers to submit plans; for further information address J. Carroll Morse, Box 133.

TELEPHONE SYSTEMS

Ky., Sharpsburg.—Sharpsburg Home Telephone Co. and Bath Home Telephone Co. consolidated as Bath Home Telephone Co.

N. C., Sanford.—S. J. Telephone Co., authorized capital \$100,000, incorporated by D. E. Melver, C. L. Williams and K. C. Woodell.

S. C., Spartanburg.—Southern Bell Telephone & Telegraph Co. (main office Atlanta, Ga.) will place wires underground. (Recently reported to erect telephone exchange and central office building.)

S. C., Switzer.—Switzer Telephone Co. incorporated by J. D. Darby, J. P. Gates and James M. Switzer.

S. C., Union.—Cross Keys Telephone Co., capital \$1000, incorporated by L. G. Brownling and W. H. Wilkinson.

Tenn., Clarksville.—Clarksville Telephone Co., capital stock \$25,000, incorporated by J. F. Rochelle, R. B. Harrison, W. M. Bloxham and A. C. Stuart.

Tenn., Lewisburg.—Cumberland Telephone & Telegraph Co., Atlanta, Ga., will make improvements to telephone system, including installation of flash-light system, at cost of \$35,000.

Tex., Yoakum.—Southwestern Telephone & Telegraph Co., H. P. King, district manager, will, it is reported, improve exchange and install equipment on second floor of old State Bank Bldg.

Tex., Sherman.—Grayson Telephone Co. issued \$150,000 bonds.

TEXTILE MILLS

Ala., Athens.—Cotton Duck, etc.—Fulton Cotton Mill Co. will build 125x152-foot addition and install 128 looms; now has 6032 ring spindles and 2896 twister spindles.

Ala., Uniontown.—Cotton Yarn.—Canebrake Cotton Mills will build one-story 50x40-foot warehouse, machine shop and operatives' cottages, install humidifying equipment, etc.; expend about \$10,000.

Ga., Augusta.—Cotton Cloth.—Riverside Mills contemplates \$100,000 to \$150,000 expenditure to erect additional mill, install machinery and build warehouses.

Ga., Social Circle.—Cotton Cloth.—Social Circle Cotton Mills writes to Manufacturers Record: "Have not made any addition to building; are adding 140 looms." (Company was recently reported as to add 5000 spindles and 150 looms.)

Miss., Meridian.—Hosiery.—Priscilla Mills will increase capacity; has 5000 spindles, 100 knitting machines, etc.

N. C., Burlington.—Hosiery.—Keystone Finishing Mills will build 90x60-foot two-story brick addition costing \$5000; awarded contract to T. G. Nicholson, Burlington; ordered additional new machinery, increasing daily capacity from 1200 dozen to 2000 dozen pairs hosiery. (Recently reported as to double capacity.)

N. C., Kings Mountain.—Anna Cotton Mills will dispose of weaving department of 121 looms; will install twisters, rearrange spinning machinery and manufacture yarns only.

N. C., Maysville.—Cotton Cloth.—Maysville Cotton Mills Co., capital stock \$100,000, incorporated by John C. Bauman, E. L. Mattocks, A. J. Dudley and others. (Mr. Bauman and others recently reported as to form company.)

WATER-POWER DEVELOPMENTS

Ark., Benton.—Garland Power & Development Co., C. C. Kavanaugh, president, Little Rock, Ark., engaged Ford, Bacon & Davis, 115 Broadway, New York, as engineers for hydro-electric plants on Ouachita River; proposes to develop 28,000 horse-power at cost of about \$3,000,000 for hydro-electric plant and transmission system. (Other details recently stated.)

Mo., Osceola.—C. R. Hunt, Osceola, and Nathan E. Utt, 1718 Harris Trust Bldg., Chicago, Ill., plan to construct Osage River hydro-electric plant lately mentioned; own power site and are planning organization of corporation; will build 14-foot dam of reinforced concrete to develop 4000 horse-power; estimated cost, \$600,000; has not decided whether to build by contract or not.

N. C., Andrews.—J. B. McCrary Co., Atlanta, Ga., is reported as planning to construct hydro-electric plant on Junaluska Creek.

N. C., Hendersonville.—Manufacturers' Power Co., capital stock \$700,000, incorporated by W. S. Montgomery (president), John A. Law (treasurer), George E. Ladshaw (engineer) and H. L. Bomar of Spartanburg, S. C.; Joseph Lee of Landrum, S. C., and Wm. A. Law of Philadelphia, Pa.; purchased 1200 acres of land on Green River, extending over territory 12 miles long, between Hendersonville and Saluda; is reported as planning to construct dam, power-house, transmission system, etc. (Mr. Ladshaw and associates previously mentioned in connection with organization of Appalachian Power Co., planning water-power developments in same section.)

Va., Lexington.—Rockbridge Power Corporation has authority from Town Council to transfer franchise for lights, etc., to Virginia Western Electric Co.; latter organized with capital stock \$204,000 as consolidation of Rockbridge Power Corporation of Lexington, Clifton Forge (Va.) Public Service Corporation and Buena Vista (Va.) Light & Power Co.; contemplates within next year either constructing transmission line from Clifton Forge to Lexington to

convey power from present steam plant or installing auxiliary steam plant at Lexington or Buena Vista.

WATER-WORKS

Ark., Fayetteville.—City ordered plans and specifications prepared for remodeling water-supply reservoir; W. N. Gladson, consulting engineer; also closed contract with Fayetteville Electric Co., J. H. McLendon, engineer, for pumping water supply for next five years; electrically-driven centrifugal pumps will be used.

D. C., Washington.—Office of Commissioners, District of Columbia, Washington. Proposals received until 2 P. M. December 30 for constructing pump-house and lodge on southeast corner of 18th St. and Minnesota Ave., Anacostia, D. C. Blank form of proposals, specifications, plans, etc., may be obtained from Chief Clerk, Engineer Department, Room 427, District Bldg.; deposit of \$10 required for plans; Cuno H. Rudolph, John A. Johnston, William V. Judson, Commissioners. (Previously noted.)

Fla., Ocala.—Lake Weir Light & Water Co., capital \$25,000, incorporated with R. L. Martin president.

Ga., Eatonton.—City will vote on bond issue for improving water-works and for municipal ownership of electric-light plant. Address The Mayor.

Ky., Jackson.—City awarded contract to T. G. Stuart of Winchester, Ky., to construct water-works.

Miss., Biloxi.—Mayor and Board of Aldermen (recently noted as adopting plans by Superintendent E. L. Casanera for installation of electrical pumps, etc.) receives bids December 23 for materials and constructing extension to water-works reservoir, pump building and cast-iron mains for pumping station. (See "Machinery Wanted.")

Miss., Louisville.—Louisville Light, Power, Water, Coal & Ice Co. incorporated by F. E. Woodward and others. (See "Electric Plants.")

N. C., Farmville.—City will petition Legislature for authority to vote on bond issue to construct water-works for protection. T. C. Turnage, Mayor. (Recently noted.)

N. C., Lillington.—City votes January 15 on \$15,000 bond issue to construct water-works and sewer system. Address The Mayor.

N. C., Newbern.—City receives bids until January 7 (extended date) for constructing fireproof building for water and light plant recently noted; F. T. Patterson, clerk. (See "Electric Plants.")

Okla., Collinsville.—City will vote in January on \$40,000 bonds to extend city water department, erect city hall, etc.; William Gresham, City Clerk.

Okla., Eufaula.—City awarded contract to Nick Peay Construction Co. of Little Rock, Ark., at about \$125,000, to construct water-works and sewer system; contract awarded for pumping plant costing about \$30,000.

Okla., Okemah.—Town is considering issuance of water-works bonds. Address Town Clerk.

Okla., Sapulpa.—City voted \$75,000 bonds to complete and extend water and sewer system. Address The Mayor.

Tex., Big Springs.—L. T. Deats, Mayor, states city contemplates taking over present water-works system. (Recently noted.)

Tex., Carthage.—Young Men's Business League is interested in securing water system.

Tex., El Paso.—City will construct systems to furnish Government Hill section with water, gas and sewerage; expenditure, \$14,000; C. E. Kelly, Mayor. (Water-works bond issue of \$200,000 recently noted.)

Tex., El Paso.—City will construct system to furnish water to the mesa overlooking city; build standpipe at city reservoir on hill at Los Angeles St.; to be provided for out of \$200,000 bond issue recently reported voted; Herbert Nunn, City Engineer.

Tex., Marlin.—City voted \$25,000 water-works bond issue. Address The Mayor.

Tex., Marlin.—City voted \$25,000 bonds to purchase A. R. Wright's interest in water-works. Address The Mayor.

Tex., Mineola.—Mineola Light & Ice Co., C. M. Dozier, manager, will construct 10,000-gallon water tank on 100-foot tower. (See "Electric Plants.")

Tex., Montgomery.—City voted \$10,000 water-works bond issue. Address The Mayor.

Tex., Paris.—City will install pumping plant operated by electricity at lake six miles west of city. Address The Mayor.

W. Va., Berkeley Springs.—Town Council

contemplates voting on bond issue for installing filtration plant and sewerage system. (See "Sewers.")

WOODWORKING PLANTS

Ark., Fort Smith.—Furniture.—Ward Furniture Manufacturing Co., capital stock \$100,000, incorporated by C. B. Eads (vice-president), James A. Ward, Jr., and Roscoe McKee.

Ark., Paragould.—Shingles.—Griffith Shingle Co. incorporated with \$5000 capital stock; J. W. Trieschmann, president.

Fla., Live Oak.—Ax Handles.—Weeks Lumber Co. contemplates erection of plant to manufacture ax handles. (See "Machinery Wanted.")

Ga., Geneva.—Heading and Staves.—Geneva Manufacturing Co., Columbus, Ga. (recently noted incorporated under "Lumber-manufacturing Plants" with \$5000 capital stock by S. C. Colquitt and others), will manufacture heading and staves; erect 50x100-foot building with drykilo 50x100 feet; cost \$1500; plans by company; cost of machinery, \$2500; daily capacity, 5000 sets heading and staves; organization of company not complete. (See "Machinery Wanted.")

Miss., Columbia.—Furniture.—H. M. Daniels of Gulfport, Miss., is considering establishment of plant to manufacture patented washstand and bed.

Miss., Harrison.—Handles.—R. Burleigh & Sons will establish plant to manufacture hickory handles.

Mo., St. Joseph.—Sash, etc.—American Sash & Door Co., F. J. Most, president, will erect three-story brick mill-construction building; contractor, St. Joe Construction Co., St. Joseph; all machinery orders placed.

Tenn., Sequatchie.—Staves.—J. T. Outlaw and M. F. Padgett, representing Interstate Copeage Co. of Dixon and Chattanooga, Tenn., are prospecting Wallace Mountain lands with view to purchasing white oak timber for manufacture into barrel staves.

BURNED

Ala., Bessemer.—Standard Brick Co.'s two drying-houses and stock-house.

Ala., Birmingham.—Max Blach's residence at 2230 Fourteenth Ave.

Ala., Clanton.—Central of Georgia Railroad's depot, freight and express offices; loss \$30,000; C. K. Lawrence, chief engineer, Savannah, Ga.

Ala., Florence.—S. E. Gardner's building, owned by R. L. Glenn; R. W. Drane's building, owned by Dr. W. R. Chisholm.

Ala., Mobile.—Mobile Column Co.'s dry-room on Three-Mile Creek; estimated loss, \$2000.

Ala., Montgomery.—J. W. Ray's residence on S. Court St.; loss about \$3000.

Ark., Little Rock.—W. W. Dunn's residence at 322 Broadway; owned by H. A. Bowman.

Ark., Dardanelle.—W. A. Jackson's building, loss \$17,000; Nick Goodier's building, loss \$4000.

Ark., Lowell.—Postoffice, Masonic Temple and other buildings; loss \$25,000.

Ark., Texarkana.—Residence of John Cuckler of Cuckler Plumbing Co. on Rondo Rd.

D. C., Washington.—Irene Apartments at 8th and K Sts. S. E., owned by P. J. McDonald, damaged; loss \$3000.

Fla., Bartow.—Wilson Wagon Works at Hendry Ave. and Summerlin St.; loss \$1700; Richard Wilson, owner.

Fla., Gainesville.—Bock Lumber Co.'s mill. Fla., Tampa.—Gillett Lumber Co.'s mill on Seddon Island.

Ga., Armuchee.—J. H. Scoggin & Son's planing mill and cotton gin; loss \$10,000.

Ga., Columbus.—I. P. Blue's residence, owned by Rose Hill Land Co.; loss \$3000.

Ga., Decatur.—Edward O. Miles' residence; loss \$6000.

Ga., Berlin.—Valdosta, Moultrie & Western Railroad's depot (J. C. Gardner, chief engineer, Valdosta, Ga.); J. M. Hester's store.

Ga., Calhoun.—H. A. Dover's store; W. A. Fout's store; loss \$5000.

Ga., Condon.—Uncompleted school building. Address School Trustees.

Ga., Athens.—Rev. S. R. Grubb's residence at Grady and Boulevard.

Ga., Rome.—De Soto Cotton Warehouse, operated by C. C. Bass.

Ga., Summerville.—Hale Hotel; loss several thousand dollars.

Ky., Lexington.—Kentucky Tobacco Redrying Co.'s redrying plant damaged to extent of \$3000.

Ky., Pisgah.—James L. Gay's residence at Highland Home Stock Farm.

Ky., Needmore, R. F. D. from Mays Lick, J. T. Reese's residence; loss \$3500.

Ky., Shelbyville.—Residence of Ed D. Shinnick, editor of Shelbyville Record.

La., New Iberia.—Iberia parish prison; loss \$3000. Address Police Jury.

Md., Baltimore.—St. Francis' Orphan Asylum at Forrest Pl. and Chase St. damaged; loss \$4000.

Md., Baltimore.—Stable at Clinton St. and Twelfth Ave., owned by Baugh Chemical Co., 25 S. Calvert St.; loss \$6400.

Md., Catonsville.—Woodbine Hotel, on Johnnycake Rd., Woodbine, owned by Bates & Morstein; loss \$5000.

Md., St. Marys City.—Hotel owned by National Slavonic Society; loss \$18,000.

Miss., Clinton.—Austin Hotel; Capital's Market; Hall & Josey's building; Mrs. Lizzie Johnson's residence; loss \$15,000.

Miss., Liberty.—E. A. Causey's residence at Washington and Holmes Sts.; loss \$4000.

Miss., Meridian.—John D. McInnis' residence at Twenty-sixth Ave. and 21st St., loss \$10,000; W. J. Price's residence, loss \$6000.

Miss., West Point.—W. F. Walker's residence on S. Division St., occupied by E. Dezonla.

Mo., Booneville.—Lionberger Bldg., occupied as department store by F. & A. Victor; loss \$50,000.

Mo., Nevada.—Hill Packing Co.'s plant; loss \$50,000.

Mo., St. Joseph.—Wesley (settlement) House.

Mo., Thoms Station, R. F. D. from Webb City.—Concentrating plant at D. & Y. mine; estimated loss, \$12,000; W. Y. Yankie, 1624 Kentucky Ave., Joplin, Mo., and Payson S. Dines of Denver, Col., owners of mine.

N. C., Durham.—Joe Woods' two stores and residence.

N. C., Hendersonville.—C. M. Dalton's building, occupied by R. A. Roberts; D. S. Pace's building, occupied by J. M. Lanning.

N. C., Stanley.—Stanley Ginning Co.'s plant; estimated loss, \$2300.

Okla., Bache.—T. A. Oglesby's store; loss \$5000.

Okla., Canadian.—Missouri, Kansas & Texas Railway's depot; A. M. Atcheson, chief engineer, Dallas, Tex.

S. C., Barnwell.—Harley & Weatherbee's store.

Okla., Eufaula.—Fears-Fuller Bldg., occupied by George Fuller, Fears & Porter and others; loss \$30,000 to \$35,000.

S. C., Chester.—T. N. Triplett's residence.

S. C., Columbia.—Mrs. Mary Fisher's building at 1520 2d Main St.; John Fisher's building at 1525 Main St.; Phil D. Kohn's building at 1526 2d Main St.; total loss about \$27,000.

S. C., Florence.—Building owned by R. L. Glenn and occupied by S. E. Gardner and others; loss \$4000.

S. C., Spartanburg.—Ben Hill Brown's residence; loss \$10,000.

Tenn., Gibson.—Dr. J. C. James' residence, owned by C. B. Stewart.

Tenn., Halls.—Dr. D. A. Munn's residence.

Tenn., Memphis.—Morris Reisman's residence at 1140 Kansas St.; Mack McColl's building at 1128 Kansas St., and J. E. Ellis' building; total loss \$6000.

Tex., Avoca.—T. D. Moore's store; loss \$5000.

Tex., Bluntzer.—William D. Bluntzer's store; building owned by Mrs. Justina Bluntzer; loss \$10,000.

Tex., Dallas.—Huey & Philip Hardware Co.'s store; loss on building, \$50,000.

Tex., Goliad.—L. Seeligs & Co.'s store; loss \$4000.

Tex., Houston.—Building occupied by Wall & Stabe Undertaking Co. at Fannin St. and Lamar Ave., and owned by Mrs. F. B. Wickes and W. L. Gardien of Victoria, Tex.; loss \$20,000.

Tex., Lorena.—M. H. Fenter's residence.

Tex., Waco.—D. S. E. Shelton's residence at 1103 Columbus St.

Va., Callands.—M. B. Price's roller and burr mill; estimated loss on machinery, \$40,000.

Va., Hot Springs.—Mrs. George Gunton's residence.

Va., Norfolk.—Nottingham & Wrenn Company's wood mill.

Va., Smithfield.—Gilbert Deward & Co.'s store; W. L. Folks' offices; D. L. Mood's printing establishment; Bank of Smithfield; Home Telephone Co.'s offices; Wilson Grocery Co.'s store; loss \$35,000.

Va., South Hill.—F. L. Sullivan's store; R. W. Osburn's building and other structures; total loss about \$40,000.

W. Va., Harpers Ferry.—Hill Top House, owned by T. S. Lovett; loss about \$20,000.

W. Va., Elkins.—Elkins Box Co. states kiln (recently reported burned) was damaged only; repairs practically complete.

W. Va., Grafton.—Grafton Lumber Co.'s plant, dryhouse and lumber; estimated loss, \$50,000.

W. Va., New Martinsville.—Presbyterian Church; loss about \$10,000. Address The Pastor, Presbyterian Church.

W. Va., White Sulphur Springs.—Bank of White Sulphur Springs; building owned by W. B. Hines; loss \$25,000.

Ala., Birmingham.—Handley Memorial Presbyterian Church, Rev. R. L. Bell, pastor, is considering erection of edifice; F. T. Frieson, James Bailey and others, committee.

Ala., Birmingham.—Fifty-seventh Street Christian Church will erect edifice; cost \$15,000; John W. Thaxton, chairman of committee.

Ala., Crichton.—Rev. Edward P. Allen, Mobile, Ala., is interested in erection of Catholic Church at Spring Hill and Item Aves.; frame construction.

Ark., Portia.—Landmark Baptist Church will erect edifice. Address The Pastor, Landmark Baptist Church.

Fla., Jacksonville.—Riverside Baptist Church, Rev. C. L. Collins, pastor, 1827 Herschel St., has plans by C. F. Streeter, Jacksonville, for first of three church buildings; 42x87 feet; frame; probably Clow gas steam heating system, to cost \$200; electric lighting; shingle roof; install portable folding chairs; cost \$3500; bids opened; plans for second building include three-story structure, 76x100 feet; fireproof; heating and lighting not determined; slate or metal roof; cost \$20,000; cost of third building \$40,000; plans not decided; second building will not be erected until first is completed, possibly two or three years, and third building will not be erected until second building is completed. (Recently noted.)

Ga., Milledgeville.—Methodist congregation will erect edifice. Address The Pastor, Methodist Church.

Ky., Lancaster.—Christian Church will erect annex to edifice; install heating plant, etc.; cost \$5000. Address The Pastor, Christian Church.

La., New Orleans.—St. Paul's Evangelical Church, Rev. A. G. Siegenthaler, pastor, purchased residence at Eleonore and Patton Sts. and will remodel; will remove interior walls to provide auditorium to seat 250.

Mo., St. Louis.—North Covenant Presbyterian Church, Rev. W. D. Vater, pastor, will erect edifice at St. Louis and Warne Aves.

Okla., Tulsa.—Church of Christ, Scientist, will erect edifice at 11th and Boulder Sts.; cost \$15,000. Address The Reader, Church of Christ, Scientist.

S. C., Bishopville.—Methodist Episcopal Church is having plans prepared by Wheeler & Stern, Charlotte, N. C., for edifice; brick; stone trimmings; heating not decided; electric lighting; slate roof; cost \$30,000.

S. C., Greenville.—Fourth Presbyterian Church will erect edifice at Broadus Ave. and Washington St.; E. A. Smyth, J. D. Woodside, R. C. Hudson and others, building committee.

Tenn., Paris.—First Presbyterian Church will erect edifice at Blyth and Market Sts., to contain main auditorium, Sunday-school rooms, reading-rooms, gymnasium, dining-room, kitchen, etc.; 80x65 feet.

Tex., Tyler.—First Presbyterian Church is having plans prepared for edifice at S. Broadway and Elm St.; 90x128 feet; cost \$35,000. Address The Pastor, First Presbyterian Church.

Va., Berkeley, Station Norfolk.—Mickro Kades congregation has plans by Russell Edward Mitchell, Norfolk, for temple at Walker Ave. and 11th St.; two stories; brick; limestone trimmings; 45x85 feet; Sabbath-school on first floor with entrance through spacious hall with tile floor; auditorium with galleries on second floor; marble steps; cost \$26,000; Isaac Legum, president of building committee.

Va., Norfolk.—Ohef Shalem congregation, Monticello Ave. and Freemason St., plans to erect synagogue in Ghent; cost \$75,000 to \$100,000. Address The Rabbi, Ahef Shalem congregation.

Va., Richmond.—Hanover Avenue Christian Church will expend \$20,000 to enlarge edifice; church auditorium to be 72x65x50 feet; ordinary construction; steam heat; combination gas and electric fixtures; slate roof; F. T. Sutton, 16 N. 19th St., chairman of building committee. (Recently noted.)

CITY AND COUNTY

Ark., Ashdown.—Jail.—Little River county will erect jail; concrete; cost \$10,000. Address County Commissioners.

Ark., Little Rock.—City Hall.—City will erect city hall at 3d and Main Sts.; two stories; 55x148 feet; Grecian style; marble columns; marble stairway leading to second floor; skylight; garage on alley side of structure for police patrol with portion adjoining for iron cages for city jail, from which steel stairway will lead directly to police courtroom; cost \$75,000.

D. C., Washington.—Sheds.—District Commissioners will receive bids until December 23 to erect sheds on Lots 4, 5 and 6, Square No. 1043, G St. S. E.; 150x36 feet; iron frame; cost \$5000; plans by Snowden Ashford, municipal architect; blank form of proposal, specifications, etc., at office of chief clerk, engineer department, Room 509 District Bldg.

Fla., Clearwater.—Jail.—Pinellas County Commissioners, C. W. Wiecking, clerk, will receive bids until January 7 to erect jail building; plans and specifications at office of County Clerk.

Fla., St. Petersburg.—Water-front Improvements.—City contemplates erecting public building to contain auditorium, Chautauqua, Board of Trade rooms, etc.; also Woman's League building and lawn, playgrounds, dancing pavilion, tennis court, skating rink, cafe, bathhouse, etc.; George N. Sarven, chairman of water-front committee.

Ky., Winchester.—Library.—J. L. Clark, president of Kentucky Wesleyan College, is interested in erection of Carnegie Library.

N. C., High Point.—Town Hall, etc.—City plans to erect town hall, opera-house and lockup. Address The Mayor.

Okla., Atoka.—Jail.—Atoka county voted \$65,000 bond issue to erect courthouse and jail. Address County Commissioners. ("See 'Courthouses.'")

Okla., Collinsville.—City Hall, Fire Station, etc.—City will vote in January on \$40,000 bond issue to erect city hall and fire station and extend city water department; William Gresham, City Clerk.

Okla., Guthrie.—Bathhouse.—Park Board opened bids about February 1 to erect bathhouse; fireproof construction; indirect fan system of heating; electric lighting; composition roofing; cost \$40,000; plans by P. H. Weathers, Guthrie, will be ready for bids about January 1. (Recently noted.)

S. C., Greenville.—Stockade.—City is considering purchase of site on Hudson St. to erect concrete building for stockade; cost about \$5000. Address The Mayor.

Tex., Austin.—City Market.—City's budget for 1913 includes \$100,000 for city market. Address The Mayor.

Tex., Calvert.—City Hall.—City is having plans prepared by Edward H. Reed, Waco, Tex., for city hall building; cost \$10,000 to \$15,000. (Details recently noted.)

Tex., Palestine.—Library.—City Council invites plans and specifications until noon January 15 for public library; lot 100 feet square; brick and concrete; cost not to exceed \$15,000. Address A. L. Bowers, Mayor. (Recently noted.)

Va., Petersburg.—Armory and Convention Hall.—City is considering erection of combined armory and convention hall. Address The Mayor.

Va., Richmond.—Market.—City has plans by Carnel & Johnston, 409 National Bank of Virginia Bldg., Richmond, for market, and will receive bids at office of H. P. Beck, Building Inspector, Room 316 City Hall, until December 23; 33x52 feet; fireproof construction; slag roof; electric lights; cost about \$40,000; certified check for \$250; plans and specifications at offices of architects and Building Inspector as above; contractors estimating are W. A. Chesterman, J. T. Nuchols, Wise Granite Co., P. J. White & Sons, J. C. Beasley & Co., Travers-Wood Company, E. C. Woodward, James Fox & Sons and H. L. Matthews, all of Richmond. (Recently noted.)

W. Va., McMechen.—City Building.—City will erect building to replace structure recently reported burned; two stories; brick; 23x30 feet. Address The Mayor.

COURTHOUSES

Okla., Atoka.—Atoka county voted bond issue to erect courthouse and jail. Address County Commissioners. (Recently noted as to vote on \$65,000 bond issue.)

Tex., Falfurrias.—Brooks county votes December 21 on \$80,000 bond issue to erect courthouse. Address County Commissioners.

DWELLINGS

Ala., Birmingham.—S. Doby will erect two-story frame residence on Ina St. and Huntsville Ave.; cost \$4000.

Ala., Ensley.—Tennessee Coal, Iron & Railroad Co., Birmingham, Ala., is reported as to erect number of residences at No. 16 mines, Edgewater and Bayview.

Ala., Montgomery.—E. S. Hugger is having plans prepared by C. Frank Galliher, 425 Bell Bldg., for residence on Martha St.; cost within \$3000.

Ark., Little Rock.—F. M. Blaisdell is pre-

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

Ga., Savannah.—Harper Investment Co. will erect eight two-story apartment-houses on Kline St.

La., New Orleans.—A. Aschaffenburg is having plans prepared by S. Hannaford & Sons, Cincinnati, O., and Favrot & Livaudais, New Orleans, associate architects, for apartment-house; 10 stories; fireproof construction; direct steam heat; alternating current electric lighting; electric elevator; composition roof; cost \$300,000.

Md., Baltimore.—Samuel W. Lippincott secretary-treasurer of Terminal Warehouse Co., Monument, Constitution and Front Sts., purchased Kalmia Park property between Charles St. Ext. and Ruxton, Md., and will erect six-room tenement and stable 60x35 feet; mill construction; plans by Owens & Sisco, Continental Bldg., Baltimore; will not erect dwelling at present.

Mo., Kansas City.—P. S. Forgerston will erect store and apartment building. (See "Stores.")

Mo., St. Louis.—Russell R. Fassig will erect single flat in Fair Ground Pl.

Mo., St. Louis.—Mutual Brewing Co. will erect apartment-house for employees on Forest Park Blvd.

Mo., St. Louis.—Maude G. Allen will erect apartment-house at 3705 Washington Ave.; five stories; three and four-room suites; fireproof; cost \$60,000.

Mo., St. Louis.—T. L. Degenhardt will erect two-story tenement-house at 3240 Michigan Ave.; cost \$2000.

Mo., St. Louis.—Samato Realty & Building Co., 5378 Etzel Ave., has plans by S. J. Coultas, 5912 De Oliver Ave., St. Louis, for apartment-house; two buildings; 48x35 feet; ordinary construction; low-pressure steam heat; cost \$14,000 each. (Recently noted.)

Mo., St. Louis.—H. F. Tacke will expend \$9000 for improvements to tenement-house at 2606 Grand Ave.

Mo., St. Louis.—W. F. Sheehan will erect two-story tenement-house at 4283 Kennerly St.; cost \$4500.

Mo., St. Louis.—T. Hollingshead will erect two two-story tenements at 3506-08 Hartford St.; cost \$8000.

Mo., St. Louis.—Henry Wilde will erect two two-story tenement-houses at 4675-77 Tennessee St.; cost \$6000.

Mo., St. Louis.—Edward E. Wall is having plans prepared by Henry A. Wagner, St. Louis, for two apartment-houses on Berlin Ave.; three and six apartments, respectively; former to contain suites of seven rooms and two baths; glass and screened sun parlors, screened sleeping porches, vacuum cleaning apparatus, laundries, steam drying-rooms, garbage incinerator, etc.; vestibules finished in white marble and quartered-oak panelling.

Mo., St. Louis.—Cora Going is having plans prepared by E. F. Holte, St. Louis, for two-story tenement at 4271 Red Bud St.; cost \$4700.

Mo., St. Louis.—W. W. Lee will erect two-story tenement at 5336 Terry St.; cost \$4400.

N. C., Halifax.—Bullock Land & Supply Co., John D. Cooper, president, Henderson, N. C., will erect tenement-houses to cost \$2000 to \$3000. (See "Land Developments.")

Tenn., Memphis.—Speedway Terrace Building Co. will be incorporated with \$25,000 capital stock by F. W. Faxon, A. C. Floyd, C. J. Haase and others; will erect 10 apartment-houses on Tutwiler Ave. between Bellevue and Waldran Bldgs.; each to contain two five-room apartments; sites 40x125 feet; cost \$6500 each.

Tex., Galveston.—Mr. Silberman lets contract January 1 to erect apartment-house; 36x90 feet; two stories; 18 rooms; stucco; cost \$10,000; plans by Green & Finger, Galveston and Houston, Tex.

Tex., Houston.—Henry S. Fox, Jr., will expend \$50,000 to erect apartment-house; 38x123 feet; fireproof construction; steam heat;

two push-button elevators; tar and gravel roof; plans by Green & Finger, Galveston and Houston, Tex.; bids opened December 19. (Recently noted.)

ASSOCIATION AND FRATERNAL

Tenn., Nashville.—Cumberland Lodge No. 8, Ancient Free and Accepted Masons, invites architects to submit plans for lodge buildings; plans indefinite; cost \$100,000; T. O. Morris, chairman of committee. (Recently noted.)

Va., Danville.—Danville Lodge, Loyal Order of Moose, has plans by O. G. Pettit, Danville, for lodge building; ordinary construction; tin roof; cost \$15,000; date of opening bids not determined. (Recently noted.)

Va., Staunton.—Young Men's Christian Association will inaugurate campaign to raise \$75,000 to erect building; C. E. Steele will be in charge.

W. Va., Sistersville.—Sistersville Lodge No. 333, Benevolent Protective Order of Elks, is considering erection of lodge building.

BANK AND OFFICE

D. C., Washington.—Southern Bldg. William Frank Thyson, manager, 15th and H Sts. N. W., plans to erect two additional stories.

D. C., Washington.—National Savings & Trust Co., 15th St. and New York Ave. N. W., is having plans prepared by Appleton P. Clark, Jr., 816 14th St. N. W., Washington, to remodel building. (Previously noted.)

Ga., Lagrange.—Lagrange Development Co. will erect office building, etc. (See "Hotels.")

Ky., Pineville.—Dr. Grant Foley opens bids about February 1 to erect office building; 25x115 feet; three stories; ordinary construction; steam heat; plans by R. F. Graf & Sons, Knoxville, Tenn. (Recently noted to cost \$15,000.)

Miss., Columbia.—Citizens' National Bank organized by Thomas S. Dale and others; will erect bank building.

Miss., Meridian.—Board of Trade is considering plans by P. J. Krouse, Meridian, to remodel building; three stories; plate-glass front; George S. Willman, chairman of committee.

S. C., Florence.—Sanborn Chase will erect building on Evans St.; steel construction; plans not made; construction not contemplated for several months.

S. C., Spartanburg.—Brewster Chapman of New Jersey will erect proposed office building; eight stories; cost \$225,000; 74x90 feet; fireproof; standpipe with hose reel on each floor connected with storage tank located 20 feet above roof; Italian Gothic design; light gray brick; terra-cotta trimmings; low-pressure steam heat; electric lighting; plate-glass windows; high-speed elevator; dressing-rooms, marble and tile; ceramic tile floors; vestibule lined with marble eight feet high; floors of marble mosaic; inside work, mahogany finish; vestibule to contain sales booths with marble counters; bids opened January 1. J. W. Alexander, Spartanburg, may give information.

Tex., Lometa.—Lometa National Bank, G. A. Swain, cashier, Goldwalthe, Tex., will erect bank building.

Va., Boykins.—R. H. Powell will erect office and store building. (See "Stores.")

Va., Richmond.—American Beneficial Insurance Co., Wesley F. Graham, president, plans to erect building at 613 N. 2d St.; three stories; cost \$20,000.

W. Va., New Martinsville.—A. E. McCaskey and E. L. Robinson will erect store and office building, etc. (See "Stores.")

CHURCHES

Ala., Bessemer.—First Baptist Church will erect Sunday-school addition. Address The Pastor, First Baptist Church.

paring plans for bungalow in Young's Park Addition; cost \$4000.

D. C., Washington.—James D. Burn, 1101 E St. N. E., has plans by S. R. Turner, 432 K St. N. W., Washington, for three dwellings at 223 to 227 12th Pl. N. W.; cost \$5000; construction by owner.

D. C., Washington.—L. E. Breuninger, 3208 19th St., will expend \$4250 each to erect 13 dwellings on Harvard St.; 22x40 feet; two stories and attic; brick and stone; hot-water heat; gas and electric lighting; slag and slate roof; construction by owner. (Recently noted.)

Fla., Jacksonville.—Doc Frazier will erect two-story frame dwelling on Union St. between Lee and Burbridge Sts.; cost \$3000.

Fla., Jacksonville.—Mrs. D. E. Maxwell will remodel two-story frame residence at 3d and Hubbard Sts.; cost \$3500.

Fla., St. Leo.—J. F. Corrigan contemplates rebuilding dwelling; plans not made. (Recently reported burned.)

Fla., St. Petersburg.—R. H. Sumner will erect four six-room cottages in Blocker subdivision.

Fla., St. Petersburg.—Mrs. Henry J. Taylor will erect eight-room concrete residence on Central Ave. in Hall Subdivision; plans by Edgar Ferudon, St. Petersburg.

Ga., Atlanta.—J. T. Taylor will erect two one-story frame dwellings on W. 10th St.; cost \$3600 and \$3980, respectively.

Ga., Atlanta.—Mrs. A. G. Hobbs will erect two-story dwelling on 8th St.; cost \$4800; day labor.

Ga., Pineora.—W. M. Exley, treasurer of Pineora Manufacturing Co., will erect residence.

Ga., Pineora.—F. E. Park, president of Pineora Manufacturing Co., will erect residence.

Ga., Savannah.—J. K. Culver will erect two-story dwelling on Bolton St.

Ga., Savannah.—Standard Investment Co., Real Estate Bank Bldg., will expend \$3500 to erect eight-room-and-bath dwelling; mill construction; steam heat; electric lighting; tin roof; plans and construction by owner. (Recently noted.)

Ky., Louisville.—C. L. Heick will erect frame dwelling at 1836 Deerwood Ave.; cost \$3000.

La., Lagrange.—Lagrange Development Co. will erect number of dwellings, etc. (See "Hotels.")

Maryland.—Joseph Trautwein, Annapolis, Md., will erect residence in Severn River section.

Maryland.—Wendelin J. Lauer of Lauer & Harper, Westport, Md., will erect residence in Severn River section.

Md., Baltimore.—Mrs. Mary Fear has plans by Stanislaus Russell, 2900 Clifton Ave., Baltimore, for nine dwellings on Poplar Grove St. north of Presbury St.; two stories; brick; slag roofs; furnace heat; lots 14x50 feet; cost \$12,000.

Md., Baltimore.—M. Fillmore Carter, Mt. Holly and Windsor Aves., has plans by Stanislaus Russell, 2900 Clifton Ave., Baltimore, for 16 dwellings on Allendale Ave. between Beech and Mondawmin Aves.; two and a half stories; lots 16x50 feet; slate roof; steam heat; cost \$3500 each.

Md., Baltimore.—James Keely, Edmondson and Ashburton Aves., has plans by William B. Gerwig, Equitable Bldg., Baltimore, for nine dwellings on Claymont St. between Harlem and Edmondson Aves.; two stories; brick; 14x44 feet; steam heat; cost \$10,000.

Md., Baltimore.—B. L. Tully will receive bids until December 25 to erect residence in West Forest Park; two and a half stories; cost \$10,000; plans by Mottu & White, 322 N. Charles St., Baltimore; contractors estimating are R. B. Mason, 210 E. Lexington St.; Willard E. Haro Company, 213 N. Calvert St.; Ignatius Smith, 3001 Westwood Ave.; C. W. Littleton & Son, 4313 Liberty Heights Ave., and Arthur Nicholson, Fendale Ave. near Norwood, all of Baltimore.

Md., Baltimore.—Murray & Haynes, 1709 N. Ellamont St., will erect bungalow on Chelsea and Duval Aves.; one and a half stories; frame; 30x40 feet; steam heat; cost \$4000; plans by M. H. Murray, 1709 N. Ellamont St., Baltimore.

Md., Baltimore.—Gordon Realty Co. will erect six two-story dwellings on Abell Ave. near 33d St.; iron-spot brick; 15 feet by 56 feet 6 inches; ordinary construction; tin roof; cost \$18,000; plans by Jacob F. Gerwig, 600 Equitable Bldg., Baltimore.

Md., Baltimore.—Modern Realty & Development Co. has plans by F. E. Beall, 213 St. Paul St., Baltimore, for cottage on Walcott Ave. near Clayton St.; 26x32 feet; two and a half stories; frame; cost \$3000.

Md., Baltimore.—Provident Realty Corporation will expend \$4000 to erect dwelling on east side of Elsinor Ave.; 27x46 feet; frame; steam heat; gas and electric lighting; slate roof; plans by Henry J. Tinley, 312 N. Charles St., Baltimore. (Recently noted.)

Md., Rockville.—Col. Spencer C. Jones will erect dwelling to replace Hungerford Tavern.

Mo., Kansas City.—Arthur P. Tureman has plans by Sheppard, Farrar & Wiser for residence at Brush Creek Blvd. and Holmes St.; early English style; vitrified brick with cut-stone trimmings and stucco and half timber gables; entire first floor of reinforced concrete slab supported on fireproof steel beams and columns; disappearing windows in dining-room, sun porch and sleeping porch; south front to have terrace or open porch; sun porch 33x15 feet; main halls and motor entry finished in white enamel.

Md., Roland Park.—James R. Hagerty, The Severn, Baltimore, Md., has plans by E. L. Palmer, 408 Roland Ave., Roland Park, for residence on Overhill Rd.; colonial style; two and a half stories; brick; marble trimmings; 58x77 feet; hot-water heat; electric lights; tiled baths; hardwood floors; cost \$40,000 to \$50,000; contractors estimating are Cowan Building Co., 106 W. Madison St.; G. Walter Tovell, Eutaw and Dolphin Sts.; Gladfelter & Chambers, Parkdale and Maryland Aves., all of Baltimore, Md., and Roland Park Co., 408 Roland Ave., Roland Park.

Mo., Kansas City.—C. E. Shepherd will erect stucco dwelling at 400 W. 60th St.; cost \$6500.

Mo., Kansas City.—V. E. Simms, 3610 E. 25th St., will expend \$3000 to erect dwelling; 25x38 feet; ordinary construction; hot-air heat; gas and electric lighting; shingle roof; plans and construction by owner. (Recently noted.)

Mo., Kansas City.—Thomas Ross will erect brick veneer dwelling at 710 Benton Blvd.; cost \$3000.

Mo., Kansas City.—Swofford Realty Co. will erect stucco dwelling at 3149 Coleman St.; cost \$3000.

Mo., Kansas City.—B. F. Daniels will erect brick veneer dwelling at 1239 E. 53th St.; cost \$3000.

Mo., Kansas City.—M. B. Smallwood will erect one stucco and one frame dwelling at 3848 and 3852 E. 59th St.; cost \$2000 each.

Mo., Kansas City.—J. W. Blackburn will erect stucco dwelling at 3446 Walrond St.; cost \$6500.

Mo., Kansas City.—Bell Bros. will erect stone-veneer dwelling at 3305 Bellefontaine St.; cost \$3000.

Mo., Kansas City.—Albertine Hoffman will erect stone-veneer dwelling at 5721 Euclid St.; cost \$3000.

Mo., Kansas City.—S. J. White will erect brick dwelling at 109 Topping St.; cost \$3000.

Mo., Kansas City.—John Donnelly will erect stone-veneer dwelling at 3746 Flora St.; cost \$3000.

Mo., Kansas City.—Charles W. Smith will erect four frame dwellings at 4900, 4902, 4906 and 4908 Baltimore St.; cost \$1750 each.

Mo., Kansas City.—Chris Heins will erect stucco dwellings at 2912 E. 25th St. and 3436 Agnes St.; cost \$3000 each.

Mo., St. Louis.—F. L. Dittmeyer will erect four one-story dwellings at 4211-17-20-41 Harris St., to cost \$5000; two-story dwelling at 5119 N. Market St., to cost \$2000; two-story dwelling at 4228 Red Bud St., to cost \$2500; two two-story dwellings at 4222-47 Harris St., to cost \$5000.

Mo., St. Louis.—Isaac Goldman, 5062 Westminster Pl., will erect residence in Washington Terrace.

Mo., St. Louis.—John Hofer will erect residence on Clayton Ave.; seven rooms; brick.

Mo., St. Louis.—Mrs. Elsie Wolff will erect residence in Washington Terrace.

Mo., St. Louis.—W. Freudenstein will erect two-story dwelling at 4564 Chouteau St., to cost \$5800.

N. C., Charlotte.—John I. Van Ness has plans by Fred L. Bonfoey, Charlotte, for residence at Little Switzerland; 10 rooms; foundation, chimneys and porch columns of rustic stone; stone fireplace; hardwood floors.

N. C., Raleigh.—O. G. King will erect residence on Glenwood Ave.

N. C., Winston-Salem.—J. E. Kenerly will erect two one-story six-room frame shingle-roof dwellings on 3d St. between Claremont and Dunleith Aves.; city water and sewer connections; electric lights; cost \$3300; construction by owner.

Tenn., Memphis.—J. N. Ellis will erect two residences at 1745 and 1747 Eastmoreland Ave.; total cost, \$2000.

Tenn., Nashville.—John Brannford of Brannford Realty Co. has plans by Robert D. Farquar, Los Angeles, Cal., for residence and garage at Belle Meade; cost about \$50,000.

Tex., Dallas.—W. C. Stevens will erect five-room frame cottages at 5537 and 5539 Worth St.; total cost, \$3200.

Tex., Dallas.—Flanders & Flanders, architects, 2038 Jackson St., Dallas, will receive bids to erect two-story frame residence in Oak Cliff.

Tex., Dallas.—T. A. Manning will erect building at 2533 S. Boulevard; seven rooms; two stories; tile; cost \$13,000.

Tex., El Paso.—William G. Walz, Jr., will erect bungalow at N. El Paso and River Sts.; cost \$5000.

Tex., El Paso.—Mayfield Realty Co. will erect two bungalows in 2800 block Rio Grande St.; cost \$8000.

Tex., El Paso.—George W. Cameron will erect residence at 1800 Boulevard; cost \$1500.

Tex., Houston.—G. W. Baker will erect two dwellings on 12th St.

Tex., Hillsboro.—Dr. W. L. Dagey has plans by J. O. Galbraith, Hillsboro, to remodel two-story frame dwelling; mill construction; cost \$2500; day labor.

Tex., Houston.—Houston Land Corporation, 11th floor, Union National Bank Bldg., has plans by L. C. Dybbro-Fargo & Converse, Houston, for dwelling; 32x44 feet; brick; stucco and frame; two fireplaces; furnaces; electric lighting; metal roof; cost \$4500; construction by owner. (Recently noted.)

Tex., Houston.—Russell-Brown Company will erect three, eight and nine-room residences on O'Neil, Avondale and Day Aves.; cost \$3000, \$5000 and \$15,000, respectively.

Tex., Houston.—Charles E. Harrison will erect seven-room residence on Elysian St.; cost \$2000.

Tex., Rusk.—Skinner & Sons will build 75 dwellings for iron-furnace employees.

Tex., San Antonio.—J. H. Weymouth will erect dwelling on San Pedro Pl.; two stories; cost \$4000.

Tex., San Antonio.—C. Trejo will erect two-story dwelling on Cevalos St.; cost \$3000.

Tex., San Angelo.—Alex. Collins, District Attorney, will erect \$5000 residence.

Tex., Timpson.—Albert Taylor will erect cottage on S. 2d St.

Va., Roanoke.—W. H. B. Loving will erect two-story brick-cased dwelling on Wasena Terrace; cost \$3700.

GOVERNMENT AND STATE

Ga., Augusta.—Postoffice.—Treasury Department, Oscar Wenderoth, supervising architect, Washington, D. C., will advertise for bids January 5 and award contract February 20 to erect postoffice adjoining Union Station. (Previously noted.)

Ga., Hartwell.—Postoffice.—A. S. and Julian B. McCurry will erect postoffice building at Howell and Carolina Sts.; tile floors; steel ceilings and equipment.

Md., Frederick.—Armory.—State opens bids about February 1 to erect armory; 75x180 feet; ordinary construction; brick, stone and joist; steel trusses over drill shed; direct steam heat; electric lighting; slag and asbestos shingle roof; cost \$32,000; plans by John B. Hamme, York, Pa., to whom proposals may be addressed; plans ready about February 1. (Recently noted under "City and County.")

Okla., McAlester.—Postoffice.—Treasury Department, Oscar Wenderoth, supervising architect, Washington, D. C., opened bids to erect postoffice; M. Yeager & Son, Danville, Ill., are lowest bidders at \$133,960 for limestone and \$135,350 for sandstone construction. (Previously noted.)

Tenn., Knoxville.—Sanitarium.—East Tennessee Tuberculosis Sanitarium directors will receive bids until December 23 to erect main building of sanitarium group; frontage 140 feet, with two wings, each 70 feet long; wide porches, sleeping-rooms, etc. (Recently noted.)

W. Va., Elkins.—Postoffice.—Treasury Department, Office of Supervising Architect, Oscar Wenderoth, Washington, D. C. Proposals received until January 23 for construction complete (including plumbing, gas-fitting, heating apparatus, electric conduits, wiring interior lighting fixtures and approaches) of United States postoffice; two stories and basement; ground area 5730 feet; first floor fireproof; stone facing; tin roof; drawings and specifications obtainable from custodian of site or at this office at discretion of supervising architect.

HOTELS

Ala., Anniston.—New Wilmer Hotel, W. A. Foute, manager, Rome, Ga., will, it is reported, expend several thousand dollars for improvements to hotel; will provide new dining-room, improve lobby, etc.

Fla., Fellsmere.—Percy L. Munn and Chas. F. Haynes of Caribu, Maine, will erect lodging-house and warehouse. (See "Warehouses.")

Fla., Lakeland.—Kibler Bros. Dunneillon, Fla., will receive bids through C. N. Clayton, cashier First National Bank, Lakeland, until January 6 to erect hotel; five stories and basement; fireproof; 100 rooms, each with bath; reinforced concrete; cost \$100,000; plans, by Melver & McKay, Ocala, Fla., at their office, and office of First National Bank, or may be had from architect on deposit of certified check for \$25. (Previously noted.)

Ga., Lagrange.—Lagrange Development Co., incorporated by Fuller E. Callaway, C. V. Truitt and others; will erect \$100,000 hotel, office building, and later number of dwellings. (Recently noted under "Land Developments.")

Ky., Pineville.—Continental Hotel Co. opens bids about February 1 to erect hotel; 100x115 feet; three stories; ordinary construction; steam heat; freight elevator; tile and shingle roof; plans by R. F. Graf & Sons, Knoxville, Tenn. (Recently noted to cost \$35,000.)

La., New Orleans.—Andry & Bendernagle, New Orleans, prepared plans for proposed Hotel Dieu on Tulane Ave.

Md., Catonsville.—Bates & Morstein will rebuild Woodbine Hotel on Johnnycake Rd., Woodbine, reported burned; loss \$5000.

Mo., St. Louis.—Montesano Springs Corporation contemplates erection of hotel. (See "Miscellaneous.")

N. C., Greensboro.—McAdoo estate, Wm. D. McAdoo, agent, will remodel and improve Hotel McAdoo; will extend entrance to edge of sidewalk, enlarge lobby, enclose second floor balcony for sun parlor, etc.

Va., Roanoke.—Sterling Hotel Co. incorporated with \$50,000 capital stock; Joseph W. Gibson, president, 15th and F Sts. N. W.; Thomas P. Taylor, vice-president, Sheridan Rd., Hillsdale; Henry Lattemer, secretary-treasurer, 1110 F St. N. W., all of Washington, D. C.

MISCELLANEOUS

Ala., Birmingham.—Clubhouse.—Southern Club, T. O. Smith, president, Fifth Ave. and 20th St., is considering erecting new structure or remodeling present one.

Ala., Montgomery.—Undertaking Establishment.—W. H. Tice is having plans prepared by C. Frank Galliber, 425 Bell Bldg., Montgomery, to remodel undertaker's establishment; cost \$4000 to \$5000.

Fla., Tampa.—Clubhouse.—Bonfoey & Elliott, architects, Tampa, opened bids to erect Centro Asturiano Clubhouse; 180x85 feet; three stories; roof garden; buff brick, terracotta, limestone and marble; marble staircase; corridors with marble wainscoting and tile floors; auditorium to seat 1500; T. A. McGucken, Tampa, is lowest bidder at \$94,260 and will probably receive contract. (Recently noted.)

D. C., Washington.—Skating Rink.—Washington Ice Skating Association will erect ice skating rink at Washington Horse Show grounds; will level field, cover with thin layer of cement and board same to flood on cold nights; also install lighting system; Eugene C. Myers (chairman and secretary), Henry T. Allen, The Connecticut; Dr. E. D. Durand, 3514 23d St., executive committee.

Ky., Fairview.—Memorial.—Jefferson Davis Memorial Association has plans by Brinton B. Davis, Louisville, Ky., for Jefferson Davis Memorial; white Southern granite; stepped roof with bronze eagle above each column; Grecian-Ionic circular open temple on granite platform 36 feet in diameter and elevated 4½ feet above ground; approach of nine steps and two wide platforms forming stylobate; 11-pointed star of colored granite in 36-foot circular platform representing 11 Confederate States; resting on star will be nine-foot green granite pedestal, and on this bronze statue of Jefferson Davis.

Ky., Louisville.—Restaurant.—James B. Camp will erect one-story brick restaurant at 913 W. Broadway.

Md., Baltimore.—Hospital.—James Lawrence Kernan Hospital for Crippled Children will have plans prepared by Butler & Rodman, 16 E. 23d St., New York, for additional building at Radnor Park; three stories, with open-air classroom on top floor 30x60 feet; 10 private rooms for patients on second floor; first floor provided with dining-room and cold-storage plant to supply entire group of.

buildings; stone, with stucco facing; colonial style; cost \$15,000.

Mo., St. Louis.—Pavilions, etc.—Montesano Springs Corporation incorporated with \$25,000 capital stock by William A. Chestnut and others; will develop amusement and health resort at Montesano Springs; plans to construct pavilions, restaurant, walks, bath-houses, provide bathing beach, etc.; contemplate erection of hotel later.

N. C., Durham.—Sanatorium.—Civic League will erect sanatorium for tubercular patients; cost \$10,000; Mrs. H. A. Foushee is interested.

N. C., Durham.—Sanitarium.—Dr. E. H. Bowling plans to erect sanitarium for pellagra patients; cost about \$5,000.

Tenn., Nashville.—Cafe.—Delevan Cafe Co. incorporated with \$5000 capital stock by L. J. Hardiman, Julius Marx, W. H. Embusch and others.

Tex., Houston.—Undertaking Establishment. Wall & Stabe Undertaking Co. will erect undertaking establishment to replace structure reported burned at loss of \$20,000.

Tex., Longview.—Grandstand.—East Texas Exhibit Association, C. B. Cunningham, general manager, opens bids about February 1 to erect grandstand; two stories; 85x200 feet; mill construction; ornamental iron posts; cost \$15,000; cost of lighting, \$1,000; architect not selected. (Recently noted.)

Va., Chesterfield.—Sanatorium.—Dr. J. C. Walton, Richmond, Va., and associates acquired property of Fonticello Springs Co. and are reported as to erect sanatorium with accommodations for about 100 patients. Dr. Walton wires Manufacturers Record: "Details when plans are perfected."

W. Va., New Martinsville.—Clubrooms.—A. E. McCaskey and E. L. Robinson will erect building, part of which may probably contain clubrooms. (See "Stores.")

RAILWAY STATIONS, SHEDS, ETC.

Ark., Benton.—St. Louis, Iron Mountain & Southern Railway, E. F. Mitchell, chief engineer, St. Louis, Mo., will erect depot.

Ky., Somerset.—Cincinnati, New Orleans & Texas Pacific Railway, C. Dougherty, chief engineer, Cincinnati, O., will erect depot; 115 feet long; cost \$25,000 to \$30,000.

La., Homer.—Louisiana & Northwestern Railroad, J. A. Knox, engineer, will erect depot.

Mo., St. Louis.—Terminal Railroad Association, W. S. McChesney, president, will erect terminal station at 3d St. and Eads Ave.; three stories; brick and stone; 30x60 feet; covered platform; cost \$100,000.

N. C., Concord.—Southern Railway Co., B. Herman, chief engineer, 1300 Pennsylvania Ave. N. W., Washington, D. C., is reported as receiving bids to erect passenger depot.

N. C., Elizabeth City.—Norfolk Southern Railroad, F. L. Nicholson, chief engineer, Norfolk, Va., will erect depot.

N. C., Salisbury.—North Carolina Public Service Co. will erect car barn between Salisbury and Spencer, N. C.; two stories; 70x138 feet; mill construction; tar roofing; cost \$75,000; plans by Mr. Zimmerman, Salisbury.

S. C., Orangeburg.—Atlantic Coast Line Railroad, E. B. Pleasants, chief engineer, Wilmington, N. C., is considering erecting passenger depot.

Tex., Dallas.—Union Terminal Co., F. G. Pettibone, president, and representatives of city adopted plans by Jarvis Hunt, Chicago, Ill., for \$5,000,000 union depot and terminal station; 350x210 feet; let contracts soon; work to begin in 90 days. (Previously noted to build car and locomotive repair shops, roundhouses, etc.)

SCHOOLS

Ala., Bessemer.—Bessemer Normal and Industrial School has plans by W. A. Rayfield & Co., Echols-Strong Bldg., Birmingham. Ala., for school 48x56 feet; mill construction; hot-air heat; wood roof; cost \$3,000; bids opened December 10; proposals may be addressed to architects.

Ala., Selma.—School Board accepted plans by William T. Warren, Birmingham, Ala., for high school on Tremont St.; three stories; 120x60 feet; 15 rooms and auditorium to seat 700; cost \$35,000.

Ark., Fort Smith.—School Board accepted plans for rebuilding burned portion of high school, remodeling original structure and erecting new building; fireproof; new structure of white stone construction and to contain auditorium, gymnasium, indoor track, swimming pool, etc.; cost \$200,000. (Previously noted as to confer with Architect William B. Ittner, St. Louis, Mo., regarding rebuilding burned structure.)

Ga., Augusta.—St. Joseph's Academy, Washington, Ga., will erect academy to replace burned structure at Washington, Ga. (Recently noted under Washington, Ga.)

Ga., Condon.—City will rebuild school reported burned. Address School Trustees.

Ga., Dahlonega.—North Georgia Agricultural College will expend \$20,000 to erect industrial building; 60x120 feet; two stories and basement; ordinary construction; gravity steam heat; tin roof; plans by J. Frank Moorefield, Gainesville, Ga., to whom proposals may be addressed. (Recently noted to receive bids until December 19.)

Ga., Springfield.—City voted \$10,000 bond issue to finish \$15,000 school building and install electric lights in town. Address The Mayor.

La., New Orleans.—City has plans by E. A. Christy, New Orleans, for school at Baudin and Broad Sts., Third Ward; two stories; brick; cost about \$50,000.

Mo., St. Louis.—St. Louis Society for the Relief and Prevention of Tuberculosis, Chas. P. Pettus, president, will erect open-air school in Compton Heights; accommodations for about 50 pupils.

Mo., St. Louis.—Board of Children's Guardians selected site of old Fort Bellefontaine as location for proposed industrial school buildings to cost \$87,000.

Okla., Dewey.—City voted \$10,000 bond issue for school improvements. Address The Mayor.

Tenn., Cordova.—Shelby County School Building Commission, W. L. Terry, secretary, Memphis, Tenn., will soon advertise for bids to erect high school; brick; cost about \$20,000.

Tenn., Park, R Station Knoxville.—City contemplates issuing \$20,000 of bonds for addition to school, etc. Address The Mayor. (See "Sewer Construction.")

Tex., Abilene.—Simmons College will expend \$32,000 to erect administration building; 107x52 feet, with wing 50x52 feet; ordinary construction; cost of lighting plant, \$3,000; tar and gravel roof; plans by Field & Clarkson, 601 Wheat Bldg., Fort Worth, Tex.; bids opened December 19; proposals may be addressed to architects. (Recently noted to receive bids until December 29.)

Tex., Austin.—Board of Trustees of Austin Public Schools will receive bids at office of Superintendent A. N. McCallum's office until January 13 to erect Anderson (colored) high school on west part of block facing Comal, Hackberry and Pennsylvania Aves.; certified check for 10 per cent. amount of bid, payable to H. M. Metz, president of board; plans, details and specifications from architect W. E. Ketchum, Room 8 First National Bank Bldg., Austin, on deposit of check for \$10. (Recently noted.)

Tex., Justin.—City voted \$15,000 bond issue to erect brick school. Address The Mayor. (Recently noted.)

Tex., Kingsville.—Texas-Mexican Industrial Institute, Rev. R. D. Campbell, president board of directors, Beeville, Tex., plans to enlarge industrial school; will erect and equip manual training building, install printing equipment, etc., erect bathhouse equipped with shower baths, dressing-rooms, lockers, etc.; erect girls' dormitory, provide dairy, poultry farm, etc.

Tex., Palacios.—Bids received by J. F. Burnett, secretary of School Board, until December 19 to erect two-story-and-basement brick school; mill construction; hot-air heat; electric lights; cost about \$21,000; certified check for \$300, payable to Mr. Burnett, as above; plans and specifications at office of T. J. & J. O. Galbraith, architects, Hillsboro, Tex., and Secretary Burnett, or may be had for three days from either party on deposit of certified check for \$25.

Tex., Sherman.—R. G. Piner, secretary, will receive plans until January 15 for 10-classroom-and-basement school building and 12-classroom-and-basement building; cost not to exceed \$35,000; one structure only to be erected; architects to state charges, also what service can be rendered in construction; nothing paid for rejected plans; architect to supervise construction.

Va., Petersburg.—General Baptist Association of Virginia contemplates erecting seminary; William Elyson, Travelers Bldg., Richmond, Va., may be addressed.

STORES

Ala., Birmingham.—N. Presley will erect two-story brick-vener building on 33d St. between 12th and 13th Aves.; cost \$4,000.

Ala., Mobile.—S. H. Kress & Co., 396 Broadway, New York, will expend about \$50,000 to remodel interior of two buildings, one fronting on Royal St. and other on Dauphin,

making entrances on each street; also erect new structure west of Royal St. building to form L; Dauphin-street portion of new structure 37x189 feet, and Royal-street section 60x190 feet; construction of new building to begin November 1.

Ark., Dardanelle.—Nick Goodier will, it is reported, rebuild structure reported burned at loss of \$4,000.

Ark., Dardanelle.—W. A. Jackson is reported as to rebuild structure reported burned at loss of \$17,000.

Ark., Little Rock.—Jacob Blass will alter store building at 4th and Main Sts.; will install additional windows on 4th St., passenger elevator, etc., and reconstruct and enlarge entire structure.

Fla., Appalachicola.—Southern Amusement Co., Tarpon Springs, Fla., will erect theater with stores on ground floor. (See "Theaters.")

Fla., Jacksonville.—Hill Investment Co. will erect two-story brick-vener building on Forbes St. between Osceola and Stockton Sts.; cost \$35,000.

Fla., Pensacola.—James McHugh has plans by Alfred & Alfred, Pensacola, for store and coffee-roasting plant; former 100x50 feet; latter 31x36 feet; mill construction; concrete floor; gas and electric lighting.

Ga., Atlanta.—B. J. and R. M. Massell will erect two-story brick building at 172-174 Piedmont St.; cost \$4,000; day labor.

Ky., Louisville.—T. P. Taylor & Co., 458 S. Fourth Ave., have plans by Loomis & Hartmann, Todd Bldg., Louisville, to rebuild drug store; three stories can be repaired; ordinary construction; steam heat; electric lighting; freight elevator; metal roof. (Recently reported burned.)

Ky., Pineville.—William Birchfield opens bids about February 1 to erect department store; 60x125 feet; two stories; mill construction; steam heat; plans by R. F. Graf & Sons, Knoxville, Tenn. (Recently noted to cost \$20,000.)

Ky., Pineville.—W. H. Hawkins & Son will not erect business block, as recently reported.

La., New Orleans.—Isidore and Earle Jacobs, proprietors of Walkover Shoe Store, 107 Baronne St., leased building at 807-809 Canal St. and will expend several thousand dollars to remodel; will install elevator, new fronts, etc.

Mo., Joplin.—Ralph Muir will erect one or more brick business buildings on Main St. between 13th and 14th sts.

Mo., Kansas City.—E. Erikson will erect brick business building at 1120 and 1122 Holmes St.; cost \$7500.

Mo., Kansas City.—George Pasfield will erect seven-story business building on Schmeltzer Arms Co. site.

Mo., Kansas City.—E. Moorehead will erect brick business building at 3840 Troost St.; cost \$12,000.

Mo., Kansas City.—F. J. Fenning will erect brick stores at 1217-19 Broadway; cost \$6,000.

Mo., Kansas City.—P. S. Forgerston will erect brick store and apartment building at 3413 Prospect St.; cost \$5,500.

Mo., Kansas City.—J. M. Cook will erect brick store building at 6506 Washington Park Blvd.; cost \$3,500.

Mo., St. Louis.—Southern Realty Co. (Louis A. Cella and others) is reported to have leased site on 6th St. between Locust and St. Charles Sts. and to have plans for six-story business building.

Mo., St. Louis.—Charles H. Nelson, president of Universal Lunch Co., 918 Olive St. and 411 N. 7th St., leased building at 716-18 Locust St. and will remodel; will provide three stories on first floor and improve upper floors to suit tenants.

Mo., St. Louis.—Delor Real Estate Co. will erect two-story mercantile building at 3446 Locust St.; cost \$10,000.

N. C., Lincolnton.—C. E. Childs has plans by Leland O. Puckett, Lincolnton, for store building; cost \$4,000. (See "Machinery Wanted.")

S. C., Charleston.—J. A. Storfer purchased old Y. M. C. A. building for local syndicate who will, it is reported, remodel for store purposes.

S. C., Greenville.—Mrs. Alice Ferguson will erect business building at Pendleton and Wardlaw Sts.; two stories and basement; brick; 55x24 feet; tar and gravel roof; cost \$5,100. (Recently noted.)

Tenn., Memphis.—Frederick W. Mayo, 781 N. 6th St., will expend \$3,000 to erect addition to drug store; hot-water heat; electric and gas lighting; dumbwaiter; probably gravel roof; plans and construction by owner. (Recently noted.)

Tenn., Memphis.—Harris & Mosby will

erect additional rooms at 41-45 S. 2d St.; cost \$5,000.

Tex., Austin.—W. P. Allen will erect two-story brick store at 405 Congress Ave.; cost \$3,500.

Tex., Ben Arnold.—M. H. Henson and J. L. Slaughter contemplate erecting business buildings.

Tex., Beaumont.—R. R. B. Henry will erect business building on Bowie St. between Orleans and Park Sts.; two stories; brick; foundation and walls to carry several additional stories.

Va., Boykins.—R. H. Powell will erect store and office building; two stories and basement.

Va., Norfolk.—The Hub (Charles Mansbach, Louis Mansbach and others) acquired space in Lowenberg Building on Main St., near Granby St., and will, it is reported, expend \$15,000 to \$20,000 for improvements and alterations; will remove partitions between two storerooms, erect 50-foot addition in rear, etc.; plans by B. F. Mitchell, Seaboard Bank Bldg., Norfolk, who may be addressed for further information.

Va., Roanoke.—W. C. Burns, J. T. Towles and others acquired building on South Jefferson St. now occupied by Adams Express Co., and will install new front, etc.

W. Va., New Martinsville.—A. E. McCaskey and E. L. Robinson will erect three-story building on Main St.; lower floor for stores; second floor for office and third floor probably for clubrooms for Magnolia Club.

W. Va., Warwood.—Scott Fair, Wheeling, W. Va., will erect building on Main St.; Martin Gossett is excavating for structure.

THEATERS

Fla., Appalachicola.—Southern Amusement Co., Tarpon Springs, Fla., will erect theater; 47x59 feet; front 30 feet high; stage 25x47 1/2 feet and 40 to 45 feet high; four dressing-rooms; horseshoe-shaped balcony; three stairways; stores 16x16 feet each on ground floor; plate-glass front on ground floor; lobby 16x16 feet; aluminum and silver picture screen.

La., New Orleans.—Herman Fitchberg leased building at Canal and Dauphine Sts. and will remodel for moving-picture theater; renew exterior and interior, decorate, etc.; cost \$20,000.

Mo., Kansas City.—Lafayette Barker will erect moving-picture theater at 4804 E. 9th St.; brick; cost \$3,600.

N. C., Charlotte.—Otto Haas, manager, will expend several thousand dollars for improvements to theater on W. Trade St.; will remodel and refit interior, install new seats and lighting system, etc.

N. C., High Point.—City plans to erect opera-house, etc. Address The Mayor. (See "City and County.")

WAREHOUSES

Fla., Fellsme.—Percy L. Munn and Chas. F. Haynes of Caribou, Me., will erect building; two stories; 50x100 feet; lower floor for warehouse and upper story for lodging-rooms.

Fla., Ocala.—McIver & Mackay will erect warehouse to replace burned structure; three stories; 80x125 feet.

Ky., Greensburg.—Loose Leaf Warehouse Co. will erect storage building, etc. (See "Miscellaneous Enterprises.")

Md., Baltimore.—John E. Hurst & Co., 39 to 45 Hopkins Pl., have plans by Parker, Thomas & Rice, Union Trust Bldg., for warehouse at 116 and 118 W. Lombard St.

Mo., St. Louis.—Reichardt Building Co. will erect one-story warehouse at 304 S. 8th St.; cost \$3,000.

N. C., Maysville.—Maysville Tobacco Warehouse Co. opens bids about January 15 to erect tobacco warehouse recently noted; 40x120 feet; semi-fireproof construction; metal roof with skylights; plans by John C. Bauman, Maysville; proposals may be addressed to Bauman & Brown, Maysville. (See "Machinery Wanted.")

N. C., Thomasville.—Thomasville Chair Co. is erecting warehouse and finishing-room; three stories and basement; brick; 40x75 feet; to be connected with present structures by gangway.

S. C., Chester.—Crosby-Simpson Warehouse Co. incorporated with \$5,000 capital stock; D. P. Crosby, president; C. D. Crosby, vice-president; W. J. Simpson, secretary-treasurer.

Tenn., Nashville.—H. G. Hill Grocery & Bakery Co. will erect warehouse at Broadway and 12th St.; two or three stories; brick; cost \$25,000.

Tex., Amarillo.—Fuqua & Hume will make

improvements to warehouse; 50x300 feet; ironclad; electric lighting; corrugated-iron roof; architect not selected.

Tex., El Paso.—Cromble & Co. will erect warehouse at Florence and 1st Sts.; brick and adobe; 120x40 feet; cost \$10,000.

Tex., Galveston.—W. L. Moody Cotton Co. will expend \$250,000 to erect warehouse, etc., recently noted; contract let December 16. (See "Cotton Compresses and Gins.")

Tex., Mineral Wells.—Gulf Refining Co., R. E. Goad, agent, contemplates rebuilding warehouse. (Recently reported burned.)

Tex., Wichita Falls.—Farmers' Union Sup-

ply Co. will erect warehouse; 64x100 feet.

Va., Danville.—Farmers' Storage & Inspection Warehouse, Inc., was chartered with authorized capital stock of \$5000; J. S. Harvey, president; J. E. Giles, vice-president; J. S. Thompson, secretary-treasurer; at present will lease building; later will erect; plans not definite.

Va., Richmond.—Atlantic Coast Line Railroad, E. B. Pleasants, chief engineer, Wilmington, N. C., will erect warehouse addition at 801 W. 8th St., South Richmond, to be occupied by Richmond Electric Co.; cost \$3000.

erect additions and make alterations to State Reformatory; 33x54 feet and 26x33 feet; two stories; fireproof and mill construction; motor and hand elevators; slate and composition roofing; cost \$50,000; plans by Theodore Wells Pietsch, 1210 American Bldg., Baltimore, Md. (Recently noted.)

Va., Thimble Shoals (not a postoffice).—Lighthouse.—Government will expend \$68,000 to reconstruct lighthouse at Thimble Shoals; fireproof construction; contract recently noted awarded to E. Hart, Norfolk, Va.

HOTELS

Ga., Soperton.—Dr. O. B. Moy awarded contract to erect 13-room hotel.

Tex., Victoria.—Thomas P. Taylor awarded contract to J. S. Meyer to erect hotel at Green Lake.

MISCELLANEOUS

Md., Baltimore.—Orphanage.—St. Francis' Orphan Asylum awarded contract to Edward Brady & Sons, 1113 Cathedral St., Baltimore, to repair orphanage reported damaged by fire at loss of \$4000.

N. C., Wilmington.—Clubhouse.—Cape Fear Club awarded contract to Wallace & Osterman, Wilmington, to erect clubhouse at 2d and Chesnut Sts.; three stories and basement; colonial style; exterior probably of red pressed brick and marble; on west side will be two-story colonial columns supporting superstructure; main entrance porch to consist of colonial pediments on columns; plans by C. P. H. Gilbert, New York.

S. C., Greenville.—Hospital.—Dr. G. T. Tyler, Richmond, Va., has plans by and awarded contract to J. R. Lawrence, Greenville, to erect hospital.

Va., Bristol.—Hospital.—Dr. A. J. Kimmons awarded contract to Smith & Wilson to erect hospital; 60x90 feet; ordinary construction; steam heat; electric lighting; electric elevator; slate roof; cost \$6000; plans by owner. (Recently noted.)

RAILWAY STATIONS, SHEDS, ETC.

Fla., Pensacola.—Gulf, Florida & Alabama Railway Co., G. A. Berry, chief engineer, awarded contract to Mount Construction Co. to erect freight house; 40x110 feet; mill construction; asphalt roof; cost \$6000. (Recently noted.)

Mo., Kansas City.—Kansas City, Clay County & St. Joseph Electric Railway awarded contract to M. & B. Construction Co., Kansas City, to erect freight depot at 3d and Cherry Sts.; one story; steel, concrete and brick.

N. C., Maxton.—Seaboard Air Line Railway, W. L. Seddon, chief engineer, Portsmouth, Va., awarded contract to York & Cobb, Raleigh, N. C., to erect passenger station; 100x35 feet; brick construction.

N. C., Winston-Salem.—Winston-Salem Southbound Railway Co. awarded contract to Rhodes & Underwood, Wilmington, N. C., to erect freight depot; two stories; brick; tin roof; 40x240 feet; 19,200 feet floor space; plans by J. F. Leitner, Wilmington, N. C. (Recently noted.)

Okla., Elk City.—Chicago, Rock Island & Pacific Railway Co., J. B. Berry, chief engineer, Chicago, Ill., awarded contract to T. S. Leake & Co., 537 S. Dearborn St., Chicago, Ill., to erect passenger depot; 28x100 feet; brick; tile roof. (Recently noted to cost \$15,000.)

SCHOOLS

Ga., Rome.—Shorter College awarded contract to erect addition to gymnasium for swimming pool; cost \$10,000; Rev. Z. J. Edge, financial agent.

Md., Frederick.—Frederick County School Commissioners awarded contract at \$29,737 to Martin C. Kemp to erect school on Washington St.; 10 rooms; fireproof; plans by Parker, Thomas & Rice, Union Trust Bldg., Baltimore, Md. (Recently noted.)

Okla., Scipio.—School District No. 37 has

plans by and awarded contract to Frank L. Coleman, Scipio, to erect 30x60-foot school building. (Recently noted.)

S. C., Marion.—School trustees awarded contract to J. J. Keller & Co., Rock Hill, S. C., to erect school building; 125x148 feet; mill construction; heating not determined; electric lighting; composition roof; cost \$40,000; plans by Wheeler & Stern, Charlotte, N. C.

Va., Richmond.—School Board will convert John Smith school building at 805 E. Marshall St. into offices for school purposes; cost \$6000; improvements include iron stairway and installation of electric fixtures; contracts let.

W. Va., Benwood.—Board of Education of Union District of Marshall County awarded contract at \$62,555 to Banks Construction Co., Clarksburg, W. Va., to erect high school; fireproof; wire-cut red variable brick; about 20 classrooms, auditorium, study hall, etc.; plans by Charles D. McCarty, National Exchange Bank, Wheeling, W. Va. (Recently noted.)

W. Va., Huntington.—Board of Education awarded contract to V. E. Taylor, Huntington, to erect Cottage Grove school; eight rooms; brick and stone; 60x100 feet; two stories and basement; fireproof and mill construction; heating and lighting contracts separate; H. W. Johns-Mansville three-ply asbestos roof; cost \$21,000; plans by V. T. Ritter. (Recently noted.)

STORES

Ala., Birmingham.—W. I. Grubb and David Roberts awarded contract to Herndon-Hetrick Construction Co., Birmingham, to erect building on Fourth Ave., between 19th and 20th Sts.; five stories; cost \$50,000.

Ala., Selma.—Dr. A. W. Jones awarded contract to erect store building at Water and Lauderdale Sts.

Ala., Selma.—Isidore Kayser awarded contract to erect store building; three stories; cost \$30,000.

Ky., Louisville.—Levy Bros., 3d and Market Sts., awarded contract to erect addition to store building; five stories and basement; about 55,000 square feet floor space; 56x107 feet; yellow Roman brick; red stone trimmings; battery of elevators, etc.; plans by Joseph & Joseph, Louisville.

Tex., Yoakum.—Dan T. Price awarded contract to Crawford, Horn & Roy to erect four-room addition and make necessary improvements to store building; lot 50x140 feet; ordinary construction; brick; tin and rubber roofing; cost \$5000; plans by owner. (Recently noted.)

Va., Norfolk.—N. B. Joyner awarded contract to J. Johnson (recently noted as lowest bidder), Norfolk, to erect store and apartment buildings; 32x65 feet and 112x60 feet; two stories; ordinary construction; gravel roof; cost \$22,500; plans by Lee & Diehl, Norfolk. (See "Machinery Wanted.")

THEATERS

Va., Graham.—H. C. Callaway awarded contract to Graham Contracting Co., Graham, to erect building; lower floor for theater; upper floor to contain five rooms; two stories; brick.

WAREHOUSES

Ala., Gadsden.—J. M. Smith & Co. awarded contract to erect warehouse on First Ave., near 7th St. in rear of Casse's Mills; corrugated steel; 100x75 feet.

N. C., Raleigh.—Johnson & Johnson Company awarded contract to erect 36x98-foot two-story brick warehouse; all materials purchased. (Recently noted.)

Tex., El Paso.—Schuster Commission Co. awarded contract to Jolly & Ware, El Paso, to erect warehouse; 40x110 feet; brick and concrete; electric lighting; hydraulic elevator; composition roof; cost \$7000; plans by O. H. Thorman & Co., El Paso. (Recently noted.)

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

Ala., Birmingham.—T. H. Molton awarded contract to Fred A. Jones Building Co., Dallas, Tex., for excavation and concrete retaining walls for apartment-house at Fifth Ave. and 20th St.; six stories and basement; 50x190 feet; 105 rooms and 44 baths; reinforced concrete construction; brick and terra-cotta trimmings; fireproof; two elevators; steam heat; plans by Harry B. Wheelock, Birmingham. (Recently noted.)

Fla., Tampa.—W. D. Frisbie, Tampa. It is reported, has contract to erect apartment-house on Hyde Park Ave.

Md., Cumberland.—P. W. Cavanaugh awarded contract to Wright, Richardson & Co., Cumberland, to convert Tanzer Bldg. into apartment building to contain six five-room-and-bath suites; electricity and gas.

Tex., Dallas.—O. A. Staples awarded contract to Hardeman-Belcher Company, Dallas, to erect apartment-house; 30 rooms; brick veneer; gravel and Spanish tile roof; cost \$20,000; cost of heating \$2150; cost of lighting \$250; plans by C. D. Hill & Co., Dallas. (Recently noted.)

Va., Norfolk.—N. B. Joyner awarded contract to erect apartment and store buildings recently noted. (See "Stores" and Machinery Wanted.")

ASSOCIATION AND FRATERNAL

S. C., Walterboro.—J. E. Moore has contract to erect Fraternal Hall on Main St.

Tex., Yorktown.—Louis Strieber awarded contract to erect building on Church St.; two stories; lower floor to be occupied by Yorktown News; upper floor for lodgerooms.

BANK AND OFFICE

Okla., Enid.—Enid National Bank awarded contract to D. C. Bass to erect bank building; 50x100 feet.

CHURCHES

La., Crowley.—First Methodist Episcopal Church awarded contract at \$28,380 to Montague Bros., Abbeville, La., to erect edifice; 50x90 feet; auditorium and assembly-rooms each 65x50 feet; three-story annex for Sunday-school; cost \$35,000; plans by Sanguiette & Staats, Fort Worth, Tex.

Miss., Laurel.—Episcopal congregation awarded contract to I. C. Garber, Jackson, Miss., to erect edifice; fireproof construction; hot-water heat; electric lighting; tile roof; cost \$22,350; material contracts placed. (Recently noted.)

Tex., Weimar.—Catholic congregation, Rev. Joseph Symanski, pastor, awarded contract to erect edifice; brick and stone; cost \$45,000. (Recently noted.)

CITY AND COUNTY

Ga., Augusta.—Hospital.—City awarded contract. It is reported, at \$35,880 to John H. McKenzie & Sons, Augusta, to erect administration building for University Hospital; plans by G. Lloyd Preacher, Augusta. (Recently noted.)

N. C., Raleigh.—Fire Station.—City awarded Contract at \$7222 to Wulkinson & Copeland, Durham, N. C., to erect firehouse on site of Capital Firehouse; will practically rebuild same; will also erect fireproof structure within larger building to contain telegraphic apparatus and signals.

DWELLINGS

Ark., Arkadelphia.—W. T. Gullege, White, Ark., awarded contract to Frank Kauffman, Arkadelphia, to erect residence; two stories; cost \$6000.

D. C., Washington.—A. E. Deichmann has plans by and awarded contract to John C. Deichmann, 1530 E. Capitol St., Washington, to erect frame dwelling at 3 Kennedy St. N. W.; cost \$3200.

GOVERNMENT AND STATE

Md., Jessups.—Reformatory.—State awarded contract to P. Q. Shrank, Marietta, O., to

RAILROAD CONSTRUCTION

RAILWAYS

Ala., Andalusia.—A report from Macon, Ga., says it is announced that the Central of Georgia Railway has decided to extend from Andalusia, Ala., to Pensacola, Fla. This may be a revival of an old report, which the company has often denied. C. K. Lawrence, Savannah, Ga., is chief engineer.

Ala., Gadsden.—Reported that a preliminary survey has been decided upon for the contemplated extension of the Gadsden, Bellevue & Lookout Mountain Railway to Center,

Ala., about 28 miles. Loul Hart, Gadsden, Ala., is chief engineer.

Ala., Mobile.—The Mobile & Ohio Railroad is reported to have nearly completed an extension of four miles from a point four miles west of Mann's Station to Dawes and will very soon operate it.

Ala., Monroeville.—The Manistee & Repton Railroad will extend its line three miles from Monroeville to Monroe, Ala., including several trestles. Company's forces will do the work. Later an extension from Slidder to Maros, Ala., 12 miles, is proposed. J. A.

Kauffman, Monroeville, is vice-president and general manager.

Ark., Pleasant Plains.—The Progressive Association of Pleasant Plains is reported interested in a plan for the construction of a railroad from there to either Bald Knob or Batesville, Ark., or possibly somewhere south of White River, to connect with the St. Louis, Iron Mountain & Southern Railroad of the Missouri Pacific system. J. E. Smith and others are interested.

Ark., Powhatan.—S. M. Neely of Memphis, Tenn., who is interested in lead mines at Powhatan, is reported contemplating with others the construction of a railroad from Powhatan to Black Rock, about four miles.

Ark., Rogers.—C. G. McClure of St. Louis and others are reported to have obtained franchise for the Northwest Arkansas Railway Co. to build an interurban line out of Rogers.

D. C., Washington.—The Washington-Virginia Railroad Co. is reported to have begun construction of second track from Arlington Junction towards Falls Church, Va. R. W. King is general manager, 1202 Pennsylvania Ave. N. W., Washington, D. C.

Fla., Port St. Joe.—The Port St. Joe Dock & Terminal Railway Co. is chartered to build and operate a railroad along the eastern coast of St. Joseph's Bay, to own and operate wharves, docks and steamers; capital, \$1,000,000.

Fla., Orlando.—J. H. McCullough and J. G. McCrory are reported laying track on their lumber railroad from Curry Ford Crossing, on the Florida East Coast Railway, to a point several miles east of Orlando. A suggestion that it be extended to Orlando is made.

Fla., Pensacola.—A report from New York says that Megargel & Co., 35 Pine St., are offering \$1,500,000 of 5 per cent. bonds of the Gulf, Florida & Alabama Railroad, the proceeds from the sale of which are to be used for building the proposed extension from Local to Pine Hill, Ala., 73 miles. G. A. Berry, Pensacola, Fla., is vice-president and chief engineer.

Ga., Waycross.—Waycross & Western Railway is reported to have received material and will complete line to Sirmans, 33 miles from Waycross, by February.

Ga., Bostwick.—The Greene County Railroad Co., W. D. Brannan, vice-president and general manager, Bostwick, Ga., is reported to have proposed an extension to Monroe and finally to Loganville, Ga., for free rights of way and a bonus of \$20,000.

Ky., Jenkins.—Officials of the Consolidation Coal Co. are reported saying that an extension of its Sandy Valley & Elkhorn Railway will be made immediately from Jenkins to McRoberts, Ky., the latter being the eastern terminal of the Louisville & Nashville Railroad's line from Jackson, Ky., which has just been completed. Survey for the extension, which would be several miles long, is made. J. H. Wheelwright, Continental Bldg., Baltimore, is president of the coal company.

Ky., Hopkinsville.—L. F. Lonnblad, chief engineer and superintendent of the Tennessee Central Railroad Co., Nashville, Tenn., says that an extension from Hopkinsville to Sturgis, Ky., is not contemplated at present. This denies a recent press report.

Ky., Winchester.—The Mountain Central Railway, of which J. C. M. Day of Winchester is vice-president and general manager, is reported to be planning construction early in the new year of an extension to Hazel Green.

La., Belle Helene.—The St. Elmo & Belle Helene Railway is reported to have finished eight miles of grade on its 14-mile line from St. Elmo via Belle Helene to a connection with the Louisiana Railway & Navigation Co.'s road. George W. Reese is president, and B. A. Webb, chief engineer, 432 Audubon Bldg., New Orleans.

La., Lafayette.—Louisiana Traction & Power Co. is reported pushing plans for the construction of its proposed lines from Lafayette to Lake Charles and other Louisiana points. T. H. Mandell, Lake Charles, La., is chief engineer.

La., New Iberia.—The New Iberia, Lafayette & Northeastern Railway, according to a report quoting an officer, is surveying for the line proposed from New Iberia to Eunice, La., 52 miles. H. A. Genung, New Iberia, La., is chief engineer.

La., Oberlin.—An official of the Oberlin, Hampton & Eastern Railway is reported saying that it is contemplated to build northeast to Pine Prairie, 16 miles; also southward to Elton, La., four miles. S. R. Howell is vice-president and general manager at Oberlin, La.

Md., Baltimore.—Mayor James H. Preston and Oscar F. Lackey, Harbor Engineer,

with other city officials, are contemplating the construction of a belt-line railroad along the inner harbor. The plan was recommended by Mr. Lackey some time ago and has just been revived.

Md., Hagerstown.—The Norfolk & Western Railway, it is reported, has just closed the purchase of several properties south of Hagerstown, near Prospect St. crossing, to build its own yards. C. S. Churchill, Roanoke, Va., is chief engineer.

Md., Perryville.—Baltimore & Ohio Railroad is reported surveying for branch from the eastern end of its Susquehanna Bridge to Cook's Point, two miles. F. L. Stuart, Baltimore, Md., is chief engineer.

Md., Williamsport.—The Western Maryland Railway is reported about to begin construction of additional yard tracks at Williamsport, this work to be soon followed by construction of the long contemplated low-grade line through the Blue Ridge to Westminster, Md. H. R. Pratt, Baltimore, Md., is chief engineer.

Miss., Jackson.—President C. H. Markham of the Illinois Central Railroad, while in Jackson, is reported as intimating that construction will begin soon on its proposed new line from Jackson towards Birmingham, for which survey was made some time ago. A. S. Baldwin is chief engineer at Chicago.

Mo., Cape Girardeau.—A St. Louis syndicate, headed by J. Hunter Byrd, of A. R. Byrd & Sons, investment brokers of that city, are reported to have bought from Louis Houck the Chester, Perryville & Ste. Genevieve Railway and affiliated lines, aggregating something more than 100 miles of track in the southeastern part of Missouri. Mr. Byrd is quoted saying that a total of \$1,000,000 will be spent to improve the property and that from \$300,000 to \$400,000 is assured. Possession will be taken January 1. It is understood also that it is contemplated to build an extension from Farmington, Mo., via Flat River to Bonne Terre, Mo. It was recently reported that a deal is on with the Frisco System for the purchase of these lines, but officers of that company denied that any agreement was closed.

Mo., Fulton.—Plans are being considered for the construction of an electric railway from Fulton to Steedman, Mo., about 15 miles. Austin Crenshaw, secretary of the Fulton Commercial Club, may be able to give information.

Mo., Nevada.—S. J. Thompson of Kansas City, Mo., says that he and W. A. Thompson are the incorporators of the Nevada, Lebanon & Eastern Railway Co., which plans the construction of a line 116 miles from Nevada to Lebanon, Mo., via Stockton, Bolivar and Buffalo, Mo. Bridges will be required over the Sac, the Pomme de Terre and the Niangua rivers, besides several smaller streams. It will be extended to the Mississippi River, altogether about 300 miles. Other incorporators are S. A. Wight and J. A. Daly of Nevada, Mo.; R. A. Brown of Stockton, Mo.; W. B. Dunigan and C. W. Viles of Bolivar, Mo.; J. P. O'Bannon of Dallas county (Buffalo), Mo., and W. J. Diffenderfer of Lebanon, Mo. Officers to be elected January 6 at Bolivar.

N. C., Fayetteville.—The Aberdeen & Rockfish Railroad, it is announced, has completed its line to Fayetteville.

N. C., Henderson.—J. M. Turner, Raleigh, N. C., president of the Virginia & Eastern Carolina Railroad Co., says that location will be finished within 30 days for its proposed line from Henderson to either Wilson or Rocky Mount, N. C., via either Louisburg and Spring Hope or Castalia and Nashville, N. C., including one bridge of 175 feet over Tar River. It will be at least 60 days before bids for construction are received. Country is rolling. Other officers are J. P. Taylor, vice-president; J. C. Kittrell, treasurer and secretary; J. C. Cruikshank, chief engineer. Besides Mr. Turner, the incorporators of the company are W. H. Alexander of Augusta, Ga., and M. C. Wood of Marion, S. C.

N. C., Kinston.—The Carolina Railroad Co., with authorized capital of \$175,000, has been chartered to take over the railroad known as the Kinston & Carolina, and which was built several years ago by the Hines Bros. Lumber Co. between Kinston and Snow Hill, N. C., 35 miles. Extensions may be made. Incorporators: C. I. Millard, J. C. Nelms, Jr., M. S. Hawkins, R. A. Black and H. Manly, all of Norfolk, Va., and W. M. Hayes of Kinston, N. C.

N. C., Lenoir.—The address of the Watauga Railway Co., W. J. Grandin, president, which is building a line from North Wilkesboro towards Elkville, N. C., is Lenoir, N. C., not Boone, as was previously reported.

N. C., Lillington.—The Atlantic & Western Railway is reported building an extension eastward from Lillington to either Goldsboro or Mount Olive, N. C., about 40 miles. W. J. Edwards, Sanford, N. C., is chief engineer.

N. C., Raleigh.—Surveys are reported made, and early in January the Legislature will be asked, it is announced, to charter the Raleigh, Atlantic & Western Railway Co. to build a line about 50 miles long from Durham, N. C., eastward to either Dunn, Selma or Bunn, N. C. It was locally stated that the Norfolk & Western and the Atlantic Coast Line would build the new road, but it is officially denied by both of these companies that any such plan is contemplated. James H. Pou of Raleigh is mentioned as being attorney for the new enterprise.

Okla., Muskogee.—Hon. C. N. Haskell and others are reported interested in a plan for the construction of another interurban railway out of Muskogee.

Okla., Tulsa.—The Atchison, Topeka & Santa Fe Railway Co. denies the recent press report that it would reconstruct its line from Havana to Tulsa, Okla., and build an extension southwest from Tulsa.

Tenn., Chattanooga.—The Louisville & Nashville Railroad Co., according to official information, does not contemplate building a line from Harriman to Chattanooga, Tenn. This refers to a recent press report.

Tenn., Iron City.—Lacy, McDowell & Co., general contractors, and Hunt Bros., sub-contractors, are reported to have begun construction of the Tennessee Western Railway from Iron City to McGlamery's Stand, about 20 miles. Other sub-contracts are to be let. W. W. Collin, Hermitage Hotel, Nashville, Tenn., is president.

Tenn., Hampton.—The Laurel Fork Railway is reported constructing an extension from Frog Level to Laban, Tenn., three miles. J. H. Broomall is general manager at Hampton, Tenn.

Tenn., Memphis.—The West Tennessee Traction Co. is reported saying that it has secured rights of way, made surveys and completed financial arrangements to begin construction about January 1 on the first section of its proposed road between Memphis and Arlington, Tenn., 25 miles. Line is finally to reach Brownsville, Jackson and other points in Tennessee. Offices in the Southern Express Bldg. George C. Bennett is president, Tennessee Trust Bldg.; B. G. Sargent, vice-president and general manager; W. L. Swift, secretary and treasurer, all of Memphis. A. N. Bullitt is chief engineer.

Tex., Dallas.—M. M. Phinney, Southwest representative of Stone & Webster of Boston, is quoted saying that the construction of an interurban railway from Dallas to Terrell, Tex., depends upon the action of persons along the route. If the right of way is provided, the line will be constructed.

Tex., Dallas.—President J. F. Strickland of the Southern Traction Co. is reported saying that on the 100-mile line from Dallas to Waco there are 59 miles of roadbed completed and ready for the ballast, besides 39 miles more than 80 per cent. completed. This is in addition to the roadbed graded between Ferris and Waxahachie. Culvert and bridge work is also well advanced. Bids are being received for tracklaying and also for overhead material. About 170 tons of rails have been received.

Tex., Dallas.—The Standard Construction Co. of Dallas, W. P. Bentley, general manager, is reported to have begun reconstruction of the Texas Traction Co.'s main line from the city limits along Myrick Ave. to Main St. Ties and rails will be laid in concrete.

Tex., Dallas.—Concerning contract awarded to Karner Bros. of Dallas for the construction of its line from Dallas to Greenville, Tex., 54 miles, an officer of the Eastern Texas Traction Co. is reported saying that the maximum grade will be 2 per cent. and the maximum curvature 2 degrees. There will be heavy construction between Garland and Dallas; also at Rockwall; four steel bridges, each 100 feet long, and 2200 feet of reinforced concrete viaduct at the crossing of the east fork of the Trinity River will be required. W. A. Obenchain, Jr., 1307 Commerce St., Dallas, Tex., is chief engineer. J. W. Crotty, vice-president and general manager, is quoted saying that eight miles of grade have been completed out of Garland.

Tex., Dalhart.—Information is reported received by the Texas Railroad Commission that financial plans for the proposed extension of the Enid, Ochiltree & Western Railroad have been accepted and grading will soon begin at Dumas on the extension from

Wilcoe to Ochiltree, 100 miles, there being 21 miles of grade finished from Wilcoe to Dumas. C. H. Sharman is general manager for the owners, who, it is reported, are Col. Charles Hamilton of Waco, Tex., and others. D. C. Morris is chief engineer. (See Manufacturers Record, November 28.)

Tex., Palestine.—C. Roe Hall, secretary, Dallas, Corsicana & Palestine Railway Co., says that contract is not yet awarded for its proposed line from Palestine to Corsicana, Tex., 62 miles. Route mostly level. L. E. Mitchell of Neosho, Mo., is president; G. J. Hedin of Corsicana, vice-president; Tucker Royall, treasurer; C. Roe Hall, secretary, both of Palestine; other incorporators being P. D. C. Ball of St. Louis and J. A. Thompson of Corsicana.

Tex., Houston.—The South Texas Traction Co. of Houston is chartered, capital \$20,000, to build, acquire, maintain and operate railways, operated either by means of electricity, gas, gasoline, alcohol or naphtha motors, between any Texas points. Incorporators: A. E. Hall, C. H. Hall and John A. Owen of Alvin, Tex.; H. T. Arnold of Houston, Tex., and Edward P. Allen of St. Louis, Mo., are also directors.

Tex., San Benito.—Contract is let to the Hidalgo Construction Co. to build another line for the Sen Benito & Rio Grande Valley Railway Co. from Santa Maria to La Lometa; also from Fernando to San Benito, a loop, altogether 51 miles. Route mostly level. E. E. McLellan, San Benito, Tex., is chief engineer.

Tex., Weldon.—President C. E. Schaff of the Missouri, Kansas & Texas Railway is quoted saying it is contemplated to extend the Beaumont & Great Northern Railroad from Weldon to a connection with the Trinity & Brazos Valley Railway soon. A. M. Acheson, Dallas, Tex., is chief engineer of the company's lines in Texas.

Va., Norfolk.—The Norfolk & Western Railway has applied for franchise to build a spur along Armistead Ave. and across the Smith Creek Canal. C. S. Churchill, Roanoke, Va., is chief engineer.

W. Va., Charleston.—The Charleston Interurban Railway Co. is reported to have completed and is operating its line to Spring Hill, 10 miles; also 6 miles east from St. Albans, W. Va. Between Charleston and St. Albans a short stretch of overhead work remains to be completed.

W. Va., Parkersburg.—K. B. Stephenson, president and general manager of the Kanawha-Ohio Valley Trade Promoting Co., is reported about closing up a campaign for subscriptions to the cost of preliminary work looking to the construction of a railroad from Parkersburg to Charleston, W. Va., about 75 miles.

STREET RAILWAYS

Ala., Birmingham.—The Highland Land Co. is reported to have applied to the City Commissioners for a franchise for an electric railway between Owensboro and Tuxedo. A. P. Bush of Mobile and others are interested, but it is said the Birmingham Railway, Light & Power Co. will construct the line.

La., Baton Rouge.—The City Council has granted a franchise to the Baton Rouge Electric Co. to build a street railway along Florida St. and East Boulevard to South Baton Rouge, the line to be completed within a year.

Tenn., Chattanooga.—Lookout Mountain Railroad Co., capital \$500,000, is chartered; incorporators, W. E. Boileau, general manager of the Chattanooga Railway Co.; E. D. Reed, D. S. Hahn, Frank Spurlock and J. C. Mann. Lookout Mountain Incline Railway Co., capital \$100,000, also chartered with the same incorporators.

Tenn., Knoxville.—The Knox County Court is reported to have granted a franchise to the Knoxville Railway & Light Co. to build a five-mile extension over the Kingston Turnpike to the Eastern Hospital for the insane.

W. Va., Morgantown.—The Morgantown & Interurban Railroad Co. has applied, it is reported, for a 50-year franchise for a street railway on the Collins Ferry Rd. and other streets. Joseph H. McDermott is president. Bids for the franchise will be received December 23 by the Common Council.

Contract for Dolarway Pavement.

The authorities of Roselle Park, N. J., have awarded contract for 15,968 square yards of "Dolarway" pavement to Bamberger & Chapman of Orange, N. J. This pavement is made in accordance with the specifications and system of the Dolarway Paving Co., 95 Liberty St., New York.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

Air Compressors.—Carolina Barytes Co., Stackhouse, N. C., wants 8x8 duplex steam-driven air compressor; steam-driven compressor, 140 cubic feet capacity; belt-driven compressor, 140 feet capacity.

Bank Fixtures.—Planters' Bank, J. W. Bailey, cashier, Stokes, N. C., wants prices on bank fixtures for room 20x30 feet.

Brass Foundry and Equipment.—Carolina Machinery & Manufacturing Co., Box 590, Sumter, S. C., wants following information: Addresses of manufacturers of brass foundry equipment; names of publications giving information on this subject; location of suitable material; also wishes to correspond with competent brass molders.

Boilers.—Geneva Manufacturing Co., Columbus, Ga., wants prices on two 50-horse-power boilers; second-hand preferred.

Boiler.—Manistee & Repton Railroad Co., J. A. Kauffman, vice-president and general manager, Monroeville, Ala., wants 50 to 80-horse-power boiler. State prices first letter.

Boiler.—Carolina Barytes Co., Stackhouse, N. C., wants 50-horse-power return-tubular boiler.

Bottle Fillers.—La Rue Chemical Co., 1212 Pennsylvania Ave., Baltimore, Md., wants to correspond with manufacturers of vaseline bottle fillers; wants to fill two-ounce bottles.

Bottle Stoppers.—J. G. Mansfield, Spartanburg, S. C., wants addresses of manufacturers of porcelain rubber disk stoppers for mineral water bottles.

Bridge Construction.—W. T. Rutherford, secretary, Kahoka, Mo., receives bids until 3 P. M. December 14 to construct seven steel bridges across main drainage district of Wyaconda Drainage District No. 1; certified check 10 per cent. of bid; plans and specifications on file with Mr. Rutherford at Kahoka and with W. B. Hazen, civil engineer, Courthouse, St. Joseph, Mo.

Bridge Construction.—Bids received at clerk's office, Bedford City, Va., noon December 21 for construction of two bridges across Goose Creek; one structure, two miles from Irving, 188 feet long, 12-foot roadway, concrete substructure, 80-foot standard revised span and approach superstructure; second, two miles from Montvale, 102 feet long, 12-foot roadway, concrete substructure, steel superstructure; certified check \$250 each; plans and specifications with clerk circuit court, Bedford City, and P. St. J. Wilson, State Highway Commissioner, Richmond, Va.; blueprints obtainable from Childrey-Sunday Company, 919½ E. Main St., Richmond, at cost of 43 cents and 25 cents per set, respectively.

Bridge Construction.—Bids received at office of Southampton county clerk, Courtland, Va., until noon December 23 for constructing recently mentioned following bridges: At Courtland, across Nottoway River, 202 feet 6 inches long; across Tarrara Creek at Boykin, 60 feet long; over Princess Pond at Drewrysville, 67 feet long; 328-foot span across Three Creeks, four miles from Joyner; across Bowers Branch, three miles from Burdette, 52 feet 3 inches long; at Ivor, across Blackwater River, 439 feet 9 inches long; three near Newsoms, 52 feet 3 inches, 66 feet 4 inches and 93 feet 10½ inches, respectively; two at Story, across Darden's mill stream, 64 feet 3 inches and 51 feet 9 inches long, respectively; steel superstructure; concrete substructure; alternate bids received on reinforced concrete abutments; plans and specifications on file with county clerk and with P. St. J. Wilson, State Highway Commissioner, Richmond, Va.; further information furnished by State Highway Commissioner; certified check for \$250 each.

Building Materials.—A. E. Galbraith, Milford, Tex., wants prices f. o. b. Palacios, Tex., on brick, lumber, lime, cement, gravel, sash, doors and plaster.

Building Materials, etc.—Frank Upman, Room 1003 Woodward Bldg., Washington, D. C., wants trade catalogues of interest to architects.

Building Materials.—O. E. Taylor & Co., Jacksonville, Fla., want prices on building materials; view to representation.

Building Materials.—Leland O. Puck-

ett, Lincolnton, N. C., wants catalogues of building materials, etc.

Building Materials.—Maysville Tobacco Warehouse Co., Maysville, N. C., wants prices on skylights, holsting fireproof doors, brick, cement and terra-cotta.

Bulkheading.—Bids in duplicate received by John M. Murch, County Auditor, Galveston, Tex., until 11 A. M. December 30 for bulkheading approach to beach at 13-mile line; plans and specifications (copies obtainable) at his office; certified check \$50; bids marked "Bids for Bulkheading Island Road."

Car.—J. F. Almond Sales Co., Charlotte, N. C., wants bids on 70-foot 6-wheel truck wide side doors baggage car; pass M. C. B. inspection and be in condition for fast passenger service.

Cereal Plant Equipment.—Oklacereal Company, Joe W. Williams, manager, Shattuck, Okla., wants prices on wheat-cleaning

machinery; package-packing machine, motors, gasoline engine, cartons and shipping boxes.

ett, Lincolnton, N. C., wants catalogues of building materials, etc.

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FOR the benefit of business concerns, engineers, contractors, machinery manufacturers, dealers and others who find it profitable to follow up daily the industrial, commercial, railroad and financial development of the South and Southwest as published in this Construction Department,

We issue every Business Day in the Year THE DAILY BULLETIN

The construction news as published in the Daily Bulletin is invaluable to all business people who want to keep in daily touch with the organization of business enterprises of all kinds throughout the whole South. Unlimited possibilities for the creation of business, for securing contract work, for the sale of machinery and supplies of all kinds, for bond buyers and others, are to be found through a close following up of the news in the Daily Bulletin.

The Daily Bulletin is an exceptionally desirable advertising medium.

The subscription price is \$25.00 a year. Are you a subscriber to it, or an advertiser in it? If not, you are missing an opportunity for profitable business.

tainable from Old, Brockenbrough & Webster, attorneys, Norfolk.

Drainage.—Bids received by Edward Rackow, chairman, Galveston County Drainage District No. 3, at Alvin, Tex., until noon January 6 for making and completing system of drainage ditches consisting of 206,000 cubic yards excavation, according to plans and specifications for district, which can be had on application to E. M. Leary, civil engineer; bids opened at office of Judge H. Grass at Alvin; certified check for 5 per cent. amount of bid.

Drainage.—Bids received in duplicate by John M. Murch, County Auditor, Galveston, Tex., until 11 A. M. December 23 for excavation of drainage ditch and road work near Nadeau; about 1500 cubic yards of earth to be removed, according to plans and specifications on file in office of County Auditor, from whom copies may be obtained; certified check for \$50.

Drying Machine.—La Rue Chemical Co., 1212 Pennsylvania Ave., Baltimore, Md., wants drying machine to dry out two drawn seamless tin boxes.

Electrical Machinery.—United States Department of Agriculture, Office of Secretary, Washington, D. C. Proposals received until 2 P. M. December 31, then opened, for furnishing at power-house of this department an electric generator and bedplate; specifications, etc., obtainable on application to chief clerk of department; W. M. Hays, acting secretary.

Electrical Machinery.—Antietam Mill Co., Funkstown, Md., wants prices on second-hand dynamo of about 35-light capacity.

Electrical Machinery.—Denton Traction Co., Denton, Tex., wants prices on 150-kilowatt rotary converter from 60 cycle, 2300 volts to 550 volts direct.

Electrical Machinery.—See "Cereal Plant Equipment."

Electrical Machinery.—Bids received by W. L. Smith, City Clerk, Oxford, Miss., until 7 P. M. January 8 for 50-kilowatt three-phase 60-cycle 2300-volt rotary field, direct connected to standard high-class high-speed engine, with exciter belted.

Engines.—Geneva Manufacturing Co., Columbus, Ga., wants prices on two 50-horse-power engines; second-hand preferred.

Flour Mill.—Hyattsville Milling & Manufacturing Co., C. E. King, president and manager, Hyattsville, Md., wants prices on machinery for flour mill; 175 barrels capacity; steam-power plant; 125-horse-power boiler; 100-horse-power engine; feed-water heater and pump.

Gas Franchise.—Bids received by City Council, St. Petersburg, Fla., at office of W. F. Divine, City Clerk, until 7:30 P. M. February 8 for purchase of gas franchise; certified check for \$1000; copy of franchise furnished on application.

Gasoline Tractor.—United States Department of Agriculture, Office of Secretary, W. M. Hayes, acting secretary, Washington, D. C. Proposals for furnishing and delivering gasoline tractor at experimental farm near Beltsville, Md., received until 2 P. M. December 20, then opened; specifications obtainable on application to disbursing clerk.

Gas Machine.—Pearsall Steam Laundry, C. H. De Villias, president, Pearsall, Tex., wants prices on gas machine.

Gasoline Engine.—See "Cereal Plant Equipment."

Ginning Machinery.—J. T. Gelbert, Box 313, Marianna, Fla., wants addresses of manufacturers of machinery for cleaning and ginning Spanish moss.

Grist Mill.—Pearsall Steam Laundry, C. H. De Villias, president, Pearsall, Tex., wants to purchase grist mill.

Handle Machinery.—Weeks Lumber Co., Live Oak, Fla., wants prices on machinery to equip axe-handle plant.

Hoisting Engine.—J. F. White, Belvidere, R. F. D. No. 1, N. C., wants double-cylinder single-drum hoisting engine; about 20 horse-power; no boiler.

Hoisting Machinery.—J. M. Pressler, Jacksonville, Tex., wants four or five-horse-power reversible steam hoist for operating double-cage elevator.

Iron Rivet.—Fulton Strirrup Co., Fulton, Ky., wants coppered iron rivet from one-half to one inch long, No. 10 and No. 12 head.

Levee Construction.—Board of Orleans Levee Commissioners receives bids until 11 A. M. December 27 at office of Board of State Engineers, 213 New Orleans Court Bldg., New Orleans, La., for construction of following work on right bank of Mississippi River: Stanton to Beka revetment, length 600 linear feet; 200,000 pecky cypress lumber; deposit \$100; Leigh Carroll, president of district.

Machine-shop Equipment, etc.—Savannah Iron Works, W. E. Tuck, president, Box 95, Savannah, Ga., wants prices on new or second-hand machine-shop equipment and supplies, including punch, shears, lathes, general boiler and machine-shop equipment, machinery and general supplies of all kinds.

Merchandise.—O. E. Taylor & Co., Jacksonville, Fla., wants prices, etc., on "good live products of merit;" view to agency.

Metal Ceilings.—J. Johnson, Norfolk, Va., wants prices on metal ceilings.

Milling Machinery.—See "Cereal Plant Equipment."

Naval Supplies.—Navy Department, Bureau of Supplies and Accounts, Washington, D. C., T. J. Cowie, Paymaster-General, opens bids January 7 for furnishing 13 worm-gear chained blocks, 18 boat chains, 24 anchor grapnels, 600 feet rubber fire hose, schedule 5063; 1000 yards terry cloth, schedule 5064; 10,000 gallons kerosene oil, schedule 5062; delivery Navy-yard, Norfolk, Va.; for copies apply to navy pay office nearest navy-yard.

Naval Supplies.—Proposals received at Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until 10 A. M. December 30, then opened, to furnish at Navy-yard, Washington, a quantity of naval supplies as follows: Schedule 5039, nautical instruments; schedule 5041, redrawing plans; schedule 5046, lumber. Applications for proposals should designate schedules desired by number. Blank proposals furnished upon application to bureau. T. J. Cowie, Paymaster-General, U. S. N.

Oil Mill Machinery, etc.—H. Benton, principal extension short courses, Oklahoma A. and M. College, Stillwater, Okla., wants catalogues and prices on cottonseed-oil and cake machinery of laboratory size.

Paving.—City of San Angelo, Tex., invites bids to construct 40,000 square yards of paving in residence portion of city; J. J. Goodfellow, City Engineer.

Paving.—Proposals received by Town Clerk, Clearwater, Fla., until 7:30 P. M. January 7 for laying concrete sidewalks on west side of Fort Harrison Ave., from Eldridge to Cedar St.; Cedar street from Fort Harrison to Osceola Ave.; west side of Osceola Ave., 450 feet, more or less, north from Cedar St., on boulevard Plaza Park addition from Drew to Third Ave.; bids opened by Town Council January 7; specifications and details at City Engineer's office; R. T. Daniel, Town Clerk.

Paving, etc.—City of Spartanburg, S. C., wants bids (to be filed by January 13) on street and cement sidewalk paving costing about \$90,000 (\$45,000 for streets and same amount for sidewalks); specifications requested with bids; city also wants bids on sewer work to amount of about \$20,000; bids to be filed at same time; plans and specifications for sewer work at office of J. H. Shores, Superintendent of Streets, to whom bids should be directed.

Paving.—Bids received and opened by City Council, Shreveport, La., at 10 A. M. December 24 for paving Wall St. from Marshall to Market St. with bitulithic; about 2500 yards; certified check for 10 per cent. amount of bid; L. H. Baker, secretary-treasurer.

Paving.—Bids received by Dan C. Smith, City Secretary, Houston, Tex., until noon December 30 for grading and paving Anita St. from west line of Main St. to east line of Baldwin St. with bitulithic pavement; certified check for 10 per cent. of cost; plans and specifications obtainable on application at office of F. L. Dormant, City Engineer; H. B. Rice, Mayor.

Piping.—Geneva Manufacturing Co., Columbus, Ga., wants prices on 15,000 to 20,000 one-foot steam pipe; second-hand preferred.

Rails.—Geneva Manufacturing Co., Columbus, Ga., wants quantity of light-track iron.

Rails.—Weller & Co., Birmingham, Ala., wants 14½ miles 30-35 or 40-pound, 7½ miles 45 or 50-pound and 5 miles 56 or 60-pound steel relay rails.

Road Construction.—Queen Anne's County Commissioners, Centerville, Md., receive separate bids until noon December 31 to construct following sections of State-aid highway: 1.02 miles upon or along Finger Board Rd. between Crumpton and Chester River, 0.49 mile upon or along Stevensville Rd. from railroad crossing southerly, and 0.78 mile upon or along Millington Rd. between Crumpton and Millington; bids to be made upon blank forms furnished by State Roads Commission, 534 N. Howard St., Baltimore, Md.; certified check \$200; plans can be seen and forms of specification and contract obtained at office State Roads Commission, Baltimore.

Road Construction.—Proposals received by Board of Revenue, Mobile county, Mobile, Ala., until 12 noon December 23 for surfacing 10 miles on St. Stephens (or Citronelle) road; county to furnish material; plans and specifications at office of Charles Dew, County Engineer, and may be obtained on application; certified check for \$200.

Road Machinery.—City of Baltimore, Md., will buy 10-ton tandem steam road roller; specifications and proposal sheet obtainable on application to H. K. McKay, City Engineer.

Roofing.—Taylor County Lumber Co., Perry, Fla., wants 300 squares galvanized roofing; corrugated iron. Give prices on 26, 28 and 29 gauge, delivered Perry.

Rubber Glass.—Citizens' Ice Co., Corinth, Miss., wants addresses of manufacturers of rubber glass.

Safe and Fixtures.—Planters' Bank, Rocky Mount, N. C., wants prices on safe and fixtures for branch bank, Battleboro, N. C.

Safe, etc.—Etowah Fire Insurance Co., John R. Davis, secretary, Rome, Ga., wants prices on safe, vault and office fixtures.

Saw.—Pearsall Steam Laundry, C. H. De Vilbiss, president, Pearsall, Tex., wants wood saw.

Sawmill.—Paschall & Gresham, 915 American National Bank Bldg., Richmond, Va., want milling, logging and planing-mill equipment for double-band sawmill.

Scythe Blades.—O. L. Jackson, Barge, R. No. 1, Ga., wants addresses of manufacturers of scythe blades.

Sewers.—Bids addressed to H. P. John-

son, City Secretary, received by City Council, Calvert, Tex., until 3 P. M. December 30 for furnishing materials for constructing sewer system; also for trenching machine excavation for sewer ditches; estimated quantities are: 331 feet 4-inch, 19,075 feet 6-inch, 5914 feet 8-inch, 3 feet 10-inch vitrified sewer pipe, 1/2 inch and specials; 600 barrels of cement, 57,000 common brick, 90 manholes, 16 flush-tank siphons; 2400 pounds jute packing for sewer joints; 10,000 pounds reinforcing steel; cutting 2018 feet sewer ditch 0 to 4 feet deep; 14,650 feet 4 to 6 feet; 8260 feet 6 to 8 feet; 685 feet 8 to 10 feet deep; specifications obtainable from City Secretary or from Fountain-Shaw Engineering Co., engineer in charge, 506 Southwestern Life Bldg., Dallas, Tex.

Sewer Construction.—Baltimore (Md.) Board of Awards receives bids until 11 A. M. December 23 to construct sanitary lateral sewers in District No. 8, Sanitary Contract No. 107; requires 35,000 linear feet vitrified pipe house connections and 39,000 linear feet vitrified pipe sewer, 8 to 24 inches diameter; plans on file with Calvin W. Hendrick, chief engineer of Sewerage Commission; specifications and plans can be obtained from Harry W. Rodgers, secretary Sewerage Commission, Room 904, American Bldg.; charge of \$10 for each set of specifications and blueprints; certified check \$3500.

Sewers.—Bids received at office of Dan C. Smith, City Secretary, Houston, Tex., until noon January 13 for furnishing material and performing all labor for constructing Fourth Ward storm sewers; work consists of 3400 feet 66-inch, 900 feet 8-foot, 5550 feet 9-foot and 1550 feet 10-foot sewers, 46 manholes, 160 catch-basins and 4200 linear feet catch-basin connections; plans and specifications obtainable at office of F. L. Dormant, City Engineer, City Hall Bldg., Houston; certified check for \$13,750; H. B. Rice, Mayor.

Sewer Construction.—City of Winston, P. O. Winston-Salem, N. C., R. I. Dalton, Mayor, asks bids on furnishing material and constructing about three miles vitrified clay sanitary interceptor, from 12 to 24 inches, with all appurtenances; plans and specifications obtainable from Mayor on payment of \$2.50; certified check for \$500 to accompany bids.

Sewer Construction.—City of Spartanburg, S. C., wants bids on sewer work to amount of about \$20,000; bids filed by January 13; plans, etc., at office of J. H. Shores, Superintendent of Streets. (See "Paving, etc.")

Sewer Construction.—Proposals received at City Hall, Wilmington, N. C., until 12 noon January 14 by councilmen of water and sewerage for construction of about 36 miles vitrified, concrete and cast-iron sewers, 8 to 24 inches diameter, complete with appurtenances; plans, specifications and blank forms, etc., with City Engineer, F. F. Pillett, and prints, etc., obtainable from him at cost of \$2.50; certified check for \$500; W. E. Perdue, councilman.

Steel Vault Cases.—Bids for steel vault cases received by Commissioners' Court of Presidio county at Marfa, Tex., January 14. Plans can be had by applying to J. H. Taff, County Clerk; deposit of \$160 required.

Structural Steel.—Maysville Tobacco Warehouse Co., Maysville, N. C., wants prices on structural steel shapes and steel roof truss.

Sugar Machinery.—Edwin R. Manchester, care Tippecanoe Securities Co., Scrant-

on, Pa., wants addresses of Southern manufacturers of and dealers in sugar-making machinery.

Telegraph Equipment.—War Department, office of chief signal officer, Washington, D. C., receives bids until December 26 for furnishing 30 helices with plugs, 30 spark gaps complete, 30 keys, 30 receiving sets and 30 control switches; send for specifications; sample instrument furnished successful bidder.

Telephone System.—Treasury Department, office of Supervising Architect, Oscar Wenderoth, Washington, D. C. Proposals received until 3 P. M. December 30, then opened, for intercommunicating telephone system for supervising architect's office, Treasury Department, Washington, in accordance with drawing and specification, copies of which are obtainable at this office, at discretion of supervising architect.

Water-works.—Proposals received by Mayor and Board of Aldermen, Biloxi, Miss., December 23, 3 P. M., for furnishing materials and constructing extensions to water-works reservoir, pump building and cast-iron mains for pumping station in accordance with plans and specifications on file in office of superintendent of works, to whom application for copies of specifications should be made; E. L. Casanera, superintendent.

Well-drilling Machinery.—Enola Cotton Oil Co., J. H. Cunningham, secretary, Enola, Ark., wants to correspond with manufacturers of deep-well machinery.

Wireless Equipment.—War Department, office of chief signal officer, Washington, D. C., receives bids December 23 for furnishing radio station equipment, five kilowatt, in accordance with specifications 566 and following information: Equipment is intended for installation on board trans-Pacific army transport; motor will operate from 110 volts direct current and will be provided with rheostat in motor field in order that stated frequency of generators can be maintained when primary voltage varies 10 per cent. in either direction, instead of 30 per cent. as stated in specification; radio generator should give 500 cycles, single phase, alternating current; receiving set to be of Wireless Specialty Apparatus Co.'s 1 P-76, model 1913; above equipment to be securely packed; bids should be accompanied by complete set of drawings and all information contained in 566, and should indicate what extra parts will be supplied.

Woodworking Machinery.—C. Weisbrod Cooperage Co., Walter Weisbrod, manager, Lutherville, Md., wants prices on thin hoop drive, left-hand stave wheel-jointer and barrel or keg steamer.

Woodworking Machinery.—See "Handle Machinery."

Raised 167 Bushels of Corn to Acre.

The Champion corn grower in Virginia this year is Frank G. Brockman of Amherst Court House, in Amherst county, adjoining Lynchburg. He is the eldest child of a family of eleven. He was 17 years old in October, and is large for his age. He made 167 bushels of corn on land that might be termed elevated bottom land. It is on a small stream known as Buffalo River, about 20 feet from low-water level. About half of the acre is

what he termed sandy loam, and the other half is a heavy dark loam carrying a small percentage of sand. The sandy part suffered fearfully from the drought this summer, while the heavier part seemed to be but little affected and yielded at the rate of 200 bushels per acre, or possibly more.

Bond Issues at Palacios.

Mr. John F. Perry of Bay City, Tex., writes to the MANUFACTURERS RECORD: "There have been two bond issues in and for Palacios lately, one for the city for \$25,000 for the purpose of city water-works, and one for the district for \$1,000,000. By district I mean Palacios and surrounding country. The purpose of the \$1,000,000 bond issue is to construct good roads and drainage. The rate of interest of both issues is 5½ per cent., and both mature, I think, in 40 years. The bonds have been sold, one bringing par and the other a little above par. The water-works construction has been let and is now well under way. The road work is to be done by local parties who live in the district. The Mayor of the city of Palacios, Mr. D. Ruthven, is in charge of the water-works proposition, while Mr. H. M. Sanders, County Commissioner, is in charge of the road work. The city bonds were sold to one of our banks in Palacios, while a Chicago firm has contracted for the district bonds."

Another Big Coal Development.

Walter Moore, president of Panama Coal & Iron Co., Birmingham, wires the MANUFACTURERS RECORD confirming a statement regarding his plans in association with other capitalists. He is quoted as follows:

"I cannot at this time announce my associates from the East and elsewhere in this development. However, I can say without fear of refutation that no development of recent years will be of greater value to the individuals interested and the general district. In the first place, we will develop a giant trade cycle in South American ports that will be of great value to this district.

"We propose to mine 5000 tons of coal per day from the 30 drifts which we are to open. Of this we have assurances of the daily exportation of 2000 tons. This property is so situated that we will have excellent river transportation, being in the headwaters of the Warrior, and I may say our officials look upon this condition with great favor. However, the mere water transportation proposition would not serve us adequately, and for that reason the Frisco lines are now being



AMERICAN RADIATOR CO.'S PLANT AT BIRMINGHAM.

Now being constructed; brick and steel fireproof buildings occupying 10 acres; foundry, finishing and other departments, 900x250 feet; cost of buildings, about \$150,000; cost of machinery and accompanying installations, about \$350,000; equipment to include 500-horse-power water-tube boilers and other machinery built in company's shops; monthly capacity, 290,000 feet of radiators; complete plant within six months and then employ 500 men; company's main office at Chicago; has 10 plants in United States, Canada and Europe; capitalization \$10,000,000.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

extended into this property situated in Walker county at a cost of \$500,000, estimated conservatively. We will get to work on this development immediately after the holidays, and by the latter part of the year will be selling coal from the Black Creek seam. We have acquired 25,000 acres of land, including the Warrior Coal & Land Co., formerly headed by the late W. H. Woodward. We purchased the holdings of all those interested in the company at the time Mr. Woodward accepted the presidency of the company. We have added to that land considerably, and have now the most valuable lands in the Black Creek and Sipsey basin."

\$1,000,000 TRUST COMPANY.

Frank A. Munsey and Others Interested in New Baltimore Enterprise.

Incorporation papers are being prepared for a new trust company in Baltimore, to be known as the Munsey Trust Co., which will occupy the first floor of the Munsey Building at Calvert and Fayette streets; capital \$1,000,000. Eugene L. Norton will be president and Frank A. Munsey of New York chairman of the board of directors. No information has been given out as yet regarding the board of directors, but it will be composed of New York and Baltimore men.

It is expected to begin business about January 15, and it is understood that the stock has already been oversubscribed, but a public offering will be made, so that there may be the widest possible distribution. The incorporation papers are being prepared by Jacob France and George R. Gaither of Baltimore, and will be signed by Frank A. Munsey of New York, Eugene L. Norton, R. Lancaster Williams, Stuart Olivier, Jacob France, George R. Gaither, T. Rowland Thomas, H. Fessenden Meserve, A. R. L. Dohme, Elmore B. Jeffrey and John L. Alcock.

Mr. Olivier, who represents Mr. Munsey's business and financial interests in Baltimore, made a statement regarding the trust company, in which he said:

"It has been Mr. Munsey's aim for some years past to identify himself more closely with Baltimore, and the erection of the Munsey Building was substantial evidence that he had real faith in Baltimore and the South. * * * The company, will do a general trust company business, and will start on the basis of every dollar of its capital stock paid in without a single penny going for underwriting commissions or in any other way. It will work in harmony with the other trust companies and banking interests of Baltimore, and will work to further the interests of Baltimore and the South. * * * Mr. Munsey has left the choice of officers, so far as his interests are concerned, to his Baltimore representatives. Mr. Norton was decided on for the presidency before Mr. Munsey even had the pleasure of his acquaintance."

FINANCIAL NEWS

The MANUFACTURERS RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office MANUFACTURERS RECORD,

Baltimore, Md., December 18.

In the Baltimore stock market during the past week Houston Oil certificates continued conspicuous and active, rising and falling on numerous transactions. Other securities were generally steady. The trading showed sales thus: United Railways common, 25% to 25; do. in-

come bonds, 63½ to 62½; do. funding 5s, from 87¼ to 88 for the \$1000 bonds and from 88½ to 89 for the \$100 denomination; do. notes, 104; do. 4s, 84½ to 84; United Electric Light & Power 4½s, 92½; Consolidated Gas, Electric Light & Power, 112½; do. preferred, 111½ to 111; do. 4½s, 87½ to 87; Consolidated Gas 5s, 107½; do. 4½s, 95; Seaboard Air Line common, 18½ to 18; do. 4s, stamped, 85½ to 85¼; do. adjustment 5s, 75; Mt. Vernon-Woodberry Cotton Duck 5s, 73½ to 72¾, reacting to 74; G.-B.-S. Brewing 4s, 48 to 45¾.

Bank stocks sold thus: Commerce, 32; Merchants', 22½ to 227; Mechanics', 30½ to 30; Western, 38½.

Mercantile Trust sold from 154½ to 155; Fidelity & Deposit, 150½ to 150; Baltimore Trust, 161 to 159; Equitable Mortgage & Trust, 126.

Other securities were traded in thus: Atlantic Coast Line of Connecticut, 262 to 263½; Consolidated Coal, 100 to 100½; Baltimore City 4s, 196½, 96¼; do. 5s, 1916, 102¼ to 101½; Fairmont & Clarksburg Traction 5s, 90½ to 90¼; Houston Oil common, trust certificates, 17½ to 22½, reacting to 18½, and with last sale at 20; do. preferred trust certificates, 64½ to 68, with last sale at 67; Atlantic Coast Line Convertible Debenture 4s, 99½ to 100¼, reacting to 99½, with last sale at 100; Atlantic Coast Line rights, 3¼ to 3%; Consolidation Coal refunding 5s, 91½ to 92; Pennsylvania Water & Power 5s, 92½; Anacostia & Potomac 5s, 90; Chicago Railways 5s, 99; Houston Oil dividend certificates, 83½; New Orleans, Mobile & Chicago 5s, 85½ to 86¼; Norfolk Railway & Light 5s, 100; Atlantic Coast Line, 137¼ to 136¼; Baltimore City 3½s, 1980, 84; Georgia & Alabama Consolidated 5s, 104½; United States Steel common, 66¼; Lexington Railway 5s, 94½; Washington, Baltimore & Annapolis 5s, 88¼; Norfolk Railway & Light common, 26¼; Baltimore Electric preferred, 44; Consolidation Coal refunding 4½s, 91½; City & Suburban (Washington) 5s, 103; Northern Central Railway stock, 123 to 122; Virginia Midland 5th, 104½; Baltimore Electric 5s, stamped, 96; Milwaukee Gas & Light 4s, 90; Southern Railway common, 27; Arden-on-the-Severn, Inc., 25; Fairmont Coal 5s, 96; Atlantic Coast Line of Connecticut 5-20s, 92; do. do. 4s, certificates, 84½; International & Great Northern Corporation, 62; Charleston City Railways 5s, 103½; Georgia Pacific 1st, 110; Baltimore City 4s, 1926, 100; Virginia Railway & Power 5s, 94.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended December 18, 1912.

Railroad Stocks.	Par.	Bid.	Asked.
Atlantic Coast Line.....	100	136¾	137
At. Coast of Conn.....	100	260	264½
Georgia R. R. & Bkg. Co.....	100	260	265
Maryland & Pennsylvania.....	100	95	96
Norfolk Railway & Light.....	100	25	26¼
Seaboard Com. & Elec. Co.....	100	18	18½
United Railways & Elec. Co.....	50	25	25½
Wash., Balto. & Annap. Pfd.....	100	37½	38

Bank Stocks.	Par.	Bid.	Asked.
Bank of Baltimore.....	100	100	167
Bank of Commerce.....	15	31	32
Citizens' & Mechanics.....	100	42¾	44
Drovers' & Merchants.....	100	212	223
Exchange.....	100	164	165
First National.....	100	144	150
German-American.....	100	107½	108
Howard.....	10	14½	15
Marine.....	30	43	44
Maryland.....	20	30	34
Mechanics.....	10	30	30½
Merchants.....	100	227	228

Trust, Fidelity and Casualty Stocks.	Par.	Bid.	Asked.
Baltimore Trust.....	100	161½	162
Continental Trust.....	100	215	225
Fidelity & Deposit.....	50	150½	151
Maryland Trust.....	100	118	125
Merc. Trust & Dep.....	50	154½	155½

Miscellaneous Stocks.	Par.	Bid.	Asked.
Baltimore Electric Pfd.....	100	44	45
Con. Gas, Elec. Lt. & P. Com.....	100	112½	113
Con. Gas, Elec. Lt. & P. Pfd.....	100	109	111½
Consolidation Coal.....	100	99½	100½
Kentucky Securities Pfd.....	100	73	74
Mer. & Min. Trans. Co. V. T.....	100	79½	80

Railroad Bonds.	Par.	Bid.	Asked.
Atlantic Coast 1st 4s.....	100	94½	95½
At. Coast Conv. Deben. 4s.....	100	99½	100
At. Coast Conn. 4s, Cfs., 5-20s.....	100	92	93
Balto. & Harris. Est. 5s.....	100	102½	105
Coal & Coke Railway 5s.....	100	94	95½
Coal & Iron Railway 5s.....	100	90	91
Florida Southern 4s.....	100	90¼	91
Georgia & Alabama 5s.....	100	104½	105¼
Georgia & Florida 5s.....	100	65½	67
Georgia, Car. & North. 1st 5s.....	100	105	105½
Georgia Pacific 1st 6s.....	100	110	110½
Georgia Southern & Fla. 1st 5s.....	100	104½	105¼
New Orleans Gt. North. 5s.....	100	65	66½
New Orleans, M. & C. 5s.....	100	86	87
Potomac Valley 1st 5s.....	100	104½	105
Raleigh & Augusta 1st 6s.....	100	113½	114
Raleigh & Gaston 5s.....	100	108	109
Richmond & Danville 6s.....	100	102½	103½
Seaboard 4s, Stamped.....	100	85¼	85¾

Seaboard Adjustment 5s.....	76
Virginia Midland 4th 5s.....	105
Virginia Midland 5th 5s.....	104
Wash., Balto. & Annap. 5s.....	87½

Street Railway Bonds.

Anacostia & Potomac 5s.....	98½	99½
Atlanta Con. St. Ry. 5s.....	104½	104½
Baltimore Traction 1st 5s.....	106	106
Charleston City Railway 5s.....	103	104
Charleston Con. Electric 5s.....	97	99
City & Suburban 5s (Wash.).....	103¼	103¼
Danville Traction & P. 5s.....	93	94
Fairmont & Clarksburg Trac. 5s.....	99½	99½
Knoxville Traction 5s.....	105	105
Lexington Railway 1st 5s.....	94	95
Maroon Railway & Light 5s.....	99	99
Maryland Electric Railways 5s.....	98	98
Metropolitan 5s (Wash.).....	99	99
Nashville Railway & Light 5s.....	101	102
Newport News & Old Point 5s.....	99	99
Newport News & O. P. G. M. 5s.....	78	80
Norfolk & Atlantic Term. 5s.....	92¼	92¼
Norfolk & Portsmouth Trac. 5s.....	89¼	91½
United Railways 1st 4s.....	83¼	84
United Railways Income 4s.....	62½	62½
United Railways Funding 5s.....	87½	88
United Railways Notes.....	103½	104½
Virginia R. & P. 5s.....	94	94½

Miscellaneous Bonds.

Ala. Con. Coal & Iron 5s.....	77
Baltimore Electric 5s, Stp.....	95½ 96
Consolidated Gas 5s.....	107½ 107½
Consolidated Gas 4½s.....	94¼ 94¼
Con. Gas, Elec. Lt. & P. 4½s.....	87 87½
Con. Gas, Elec. Lt. & P. Notes.....	99½ 100
Consolidation Coal Ref. 5s.....	91¼ 92
Fairmont Coal 1st 5s.....	95½ 96
G.-B.-S. Brewing 1st 4s.....	45½ 46
Janison Coal & Coke 5s.....	92 93
Maryland Steel Co. 5s.....	100½ 101
Mt. Vernon-Woodby Cot. Duck 5s.....	74 74½
United Elec. Lt. & P. 4½s.....	92¼ 93

SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending December 16.

Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	70
Aiken Mfg. Co. (S. C.).....	75
American Spinning Co. (S. C.).....	162
Anderson Cotton Mills (S. C.).....	48
Anderson Cot. Mills (S. C.) Pfd.....	100
Arcadia Mills (S. C.).....	90
Arkwright Cotton Mills (S. C.).....	99
Belton Mills (S. C.).....	100
Brandon Mills (S. C.).....	90
Brogan Mills (S. C.).....	60
Chickadee Mfg. Co. (S. C.).....	160
Clifton Mfg. Co. (S. C.) Pfd.....	87
Clinton Cotton Mills (S. C.).....	120
Courtney Mfg. Co. (S. C.).....	93
Dallas Mfg. Co. (Ala.).....	99
D. E. Converse Co. (S. C.).....	75
Drayton Mills (S. C.).....	90
Eagle & Phenix Mills (Ga.).....	106
Easley Cotton Mills (S. C.).....	162
Enoree Mfg. Co. (S. C.).....	25
Ethoree Mfg. Co. (S. C.) Pfd.....	85
Gaffney Mfg. Co. (S. C.) Pfd.....	72
Gainesville Cotton Mills (Ga.).....	72
Glenwood Cotton Mills (S. C.).....	100
Graniteville Mfg. Co. (S. C.).....	135
Greenwood Cotton Mills (S. C.).....	57
Grendel Mills (S. C.).....	90
Hartsville Cotton Mill (S. C.).....	160
Henrietta Mills (N. C.).....	160
Inman Mills (S. C.).....	100
King Mfg. Co. J. P. (Ga.).....	80
Laurens Cotton Mills (S. C.).....	130
Lancaster Cot. Mills (S. C.) Pfd.....	97
Langley Mfg. Co. (S. C.).....	75
Laurens Mills (S. C.).....	125
Limestone Mills (S. C.).....	155
Lockhart Mills (S. C.).....	60
Lockhart Mills (S. C.) Pfd.....	90
Loray Cotton Mills (N. C.) Pfd.....	90
Mariboro Cotton Mills (S. C.).....	75
Mills Mfg. Co. (S. C.).....	90
Molokoh Mfg. Co. (S. C.).....	90
Monaghan Mills (S. C.).....	100
Monarch Cotton Mills (S. C.).....	105
Newberry Cotton Mills (S. C.).....	125
Ninety-Six Cotton Mills (S. C.).....	130
Norris Cotton Mills (S. C.).....	115
Orr Cotton Mills (S. C.).....	90
Pacolet Mfg. Co. (S. C.).....	94
Pacolet Mfg. Co. (S. C.) Pfd.....	95
Parker Common.....	20
Parker Preferred.....	63
Pelzer Mfg. Co. (S. C.).....	120
Poe Mfg. Co. F. W. (S. C.).....	102
Saxon Mills (S. C.).....	130
Spartan Mills (S. C.).....	110
Trion Mfg. Co. (Ga.).....	130
Tucapau Mills (S. C.).....	300
Union-Buttola (S. C.) 1st Pfd.....	60
Union-Buttola (S. C.) 2d Pfd.....	15
Victor Mfg. Co. (S. C.).....	110
Warren Mfg. Co. (S. C.).....	90
Warren Mfg. Co. (S. C.) Pfd.....	100
Washington Mills (Va.).....	28
Washington Mills (Va.) Pfd.....	106
Watts Mills (S. C.).....	70
Whitney Mfg. Co. (S. C.).....	110
Williamson Mills (S. C.).....	120
Wiscasset Mills (N. C.).....	135
Woodruff Cotton Mills (S. C.).....	95
Woodside Cotton Mills (S. C.).....	100

FINANCIAL CORPORATIONS.

Ala., Greenville.—The First Mortgage & Loan Co. is reported being organized by R. A. Beeland and others. Offices will be in the First National Bank Bldg.

Ala., Mobile.—The Realty Mortgage & Investment Co. has filed articles of incorporation; capital \$25,000, with \$10,000 paid in; H. P. Probst, president; James R. D. Bray, vice-president; John Shields, secretary-treasurer; W. B. Shields, director.

Ala., Mobile.—Plans are reported under way to organize a loan, mortgage and trust company with \$1,000,000 capital; W. P. G. Harding, president; First National Bank of Birmingham, Ala., is said to be interested.

Ark., Newport.—The Jackson County Abstract & Guaranty Co. is reported chartered; capital \$5000; A. W. Estes, president;

George Vaughan, vice-president; M. D. Kinkhead, secretary-treasurer.

Ala., Wards.—H. B. Ward of Cuba, Ala., is reported organizing a State bank in Wards.

Ark., Hot Springs.—The Bank of the United States Steel Tie Co. is reported to have filed articles of incorporation; capital \$50,000, with \$35,000 paid in. Among those interested are R. E. L. Maxey, M. Kinney, A. Lemolne, C. L. Lewis, Fred W. Vaughan and the United States Steel Railroad Tie Co.

Ark., Prescott.—The First National Bank of Prescott is reported chartered; capital \$30,000; directors, W. B. Waller, Oscar B. Gordon, George F. Cress and W. R. Barham.

Ark., Pyatt.—Official: The Bank of Pyatt, unincorporated, is organized with personal liability of \$50,000. Business is to begin about December 16 with W. R. Jones president, T. L. Bond vice-president, J. F. Carson secretary, M. H. Pierce cashier, Oscar Gilley assistant cashier.

D. C., Washington.—Official: The Interstate Investment Co. of Washington incorporated; capital \$100,000. Directors: J. Selwin Taft, president Washington and Southern Bank, president; C. H. Ridenour, proprietor Army and Navy Register, vice-president; S. S. Cissill, Arlington Mills, Georgetown, D. C.; Chas. M. Pepper, Commercial Advisor to State Department; Charles Mullikin, vice-president, Washington and Southern Bank. Business has begun. A previous report gave the headquarters as Alexandria, Va.

Fla., Fort Lauderdale.—The Fort Lauderdale Mutual Loan and Building Association, capital \$500,000, is reported organized with the following officers: President, W. F. Sunkel; first vice-president, D. C. Alexander; second vice-president, E. E. Rogers; treasurer, W. C. Kyle; secretary, Guy Sherman; attorney, Guy Sherman; directors, H. G. Wheeler, Chas. M. Davis, W. C. Kyle, W. H. Marshall, D. C. Alexander, E. E. Rogers, Guy Sherman, E. S. Randel, W. O. Berryhill and C. C. Ausherman.

Fla., Jacksonville.—The Atlantic Fire Insurance Co., capital \$50,000, is reported organized with W. E. Alexander president, Martin B. Bartholomew vice-president, Frank S. Porter secretary, George H. Merritt treasurer.

Fla., Pensacola.—Official: The Florida Bankers' Syndicate chartered; capital \$250,000; surplus \$50,000; organizers, A. L. Glass, Pensacola, president; Chas. Isted, Eustis, Fla., vice-president; C. W. Lamar, Wm. Fisher and W. A. Blount, Pensacola; H. F. Dutton and W. R. Thomas, Gainesville, Fla.; B. W. Blount, Jacksonville, Fla., and A. P. Stuckey, Ocala, Fla. Business is to begin January 15.

Fla., Bushnell.—The Citizens' Bank of Bushnell, capital \$15,000, is reported organized; J. M. Harvey, president; W. T. B. Harrison, vice-president; R. F. Collins, cashier.

Fla., St. Petersburg.—A new bank capitalized at \$25,000 is reported being organized by Noel A. Mitchell of St. Petersburg, W. R. Hughes of Kentucky and others.

Fla., West Palm Beach.—Official: The Farmers' Bank & Trust Co., capital \$50,000, has organized with the following officers: Geo. G. Currie, president; Marion E. Gruber, first vice-president; H. P. Dye, second vice-president; Thomas J. Campbell, third vice-president; W. E. Keen, secretary; Fred Gutelius, cashier; directors, H. P. McGlinley, C. F. Baum, Geo. A. Angevine, W. H. Lawrence, Geo. W. Fowler, Fred Edgerton, John B. Beach. Business is expected to begin the first part of January.

Ga., Rome.—Official: The Etowah Fire Insurance Co. incorporated; A. L. Hinson, president; John R. Davis, secretary. Business is to begin January 15.

Ga., Savannah.—The Realty Bond & Mortgage Co. is reported to have made application for a charter; capital \$100,000; petitioners, K. Platshek and George H. Miller.

La., Baton Rouge.—The Progressive Negroes Savings Bank & Trust Co., capital \$50,000, is reported to have begun business; Dr. J. H. Lowery, president; Dr. William C. Murray, first vice-president; Dr. George C. Bryant, second vice-president; Dr. George H. Nelson, third vice-president; E. D. Wright, secretary.

La., New Orleans.—A special dispatch says it is reported that the Iliernia Bank & Trust Co. on January 14 will change its name to the Iliernia National Bank of New Orleans and will increase its capital from \$1,000,000 to \$1,500,000, the surplus of \$2,000,000 to remain unchanged.

La., New Orleans.—The Louisiana Securities Co., capital \$200,000, has made applica-

tion for a charter; petitioners, Gustaf R. Westfeldt, Jr., and Fred H. Dienes.

Md., Baltimore.—The Calverton Mutual Building Association, capital \$650,000, is incorporated by John W. Schafer, Chas. J. Schafer and Edgar A. Mills.

Md., Baltimore.—R. Lancaster Williams of Baltimore and associates are interested in the formation of a trust company with \$1,000,000 capital. Others reported interested are Frank J. Gould, 165 Broadway, New York; Geo. W. Perkins and Frank A. Munsey, also of New York.

Md., Baltimore.—The Citizens' Permanent Building and Loan Association No. 2 of Baltimore City, capital \$520,000, is incorporated by Wm. L. Reed, Jr., Geo. W. Brookhart and Samuel H. Barry.

Miss., Hattiesburg.—The Hub Insurance Co., capital \$10,000, has filed charter of incorporation; incorporators, C. O. Eure, F. J. Duke, J. E. Davis, all of Hattiesburg.

Mo., Camden.—The Camden State Bank is reported chartered; capital \$10,000; directors, T. L. Cooper, J. W. Smith, C. C. Cline, J. S. Finley, P. L. Vanbender, E. L. Jordan, J. M. Moore and J. Thralls.

N. C., Battleboro.—Official: The Planters' Bank is organized and will be conducted as a branch of the Planters' Bank of Rocky Mount, N. C., also will have the same officers; J. C. Braswell, president; J. M. Sherrod, vice-president; J. W. Aycock, cashier. Business will begin as soon as fixtures, etc., are purchased.

N. C., Newbern.—The Citizens' Savings Bank & Trust Co. is reported to have begun business; T. A. Uzzel, president, and W. H. Henderson, cashier. (See Manufacturers Record, November 28.)

Okla., Ivanhoe.—The Ivanhoe State Bank, capital \$10,000, is reported incorporated by C. H. V. Earl of Ivanhoe; T. W. Bruce, Shadland; C. A. Bigelow and W. E. Stuart, Shattuck, and Claget Coopman of Catesby.

Okla., Keota.—Reported chartered: The Keota National Bank; capital \$25,000; J. W. Robinson, president; J. C. Terrell, cashier.

Okla., Muskogee.—D. N. Fink, a member of the advisory board, confirms report that the Midcontinent Life Insurance Co. is a reorganization of an old company. (See "Manufacturers Record, December 12.")

Okla., Muskogee.—The Bankers' Trust Co., capital \$100,000, is reported organized. Butte, Boone & Lattimore are attorneys for the organization.

Okla., Pryor.—The American State Bank of Pryor is reported to have begun business. The new bank was organized, it is stated, to take over the business of the First State Bank of Pryor. A. J. Langer of Davenport is president.

Okla., Pryor Creek.—The American State Bank is reported being organized with A. J. Langer president and E. W. Gwartney vice-president.

S. C., Charleston.—The Climax Building and Loan Association, authorized capital \$150,000, is reported organized with: President, R. G. Rhett; vice-president, Leland Moore; secretary and treasurer, Tristram T. Hyde; solicitor, Wm. Henry Parker; directors, Leland Moore, W. H. Walsh, A. R. Rugheimer, R. G. Rhett and George B. Buell.

S. C., Charleston.—The Title Guarantee & Deposit Co., capital \$50,000, will, it is reported, begin business on January 2 at No. 15 Broad St.; T. S. Wilbur, president; James Allan, first vice-president; T. A. Legare, second vice-president; R. B. Gilchrist, cashier, secretary and treasurer; W. C. Wilbur, assistant cashier and assistant treasurer; solicitors, Ficken, Rivers & Eckman; directors, James Allan, R. M. Anderson, J. M. Connelley, George R. Fishburne, R. B. Gilchrist, N. A. Hunt, C. B. Hulet, Oscar E. Johnson, T. Allen Legare, E. H. Mappus, John McAllister, F. Q. O'Neill, Hyman Pearlstone, R. M. Solomons, F. E. Thomas, T. S. Wilbur and W. C. Wilbur.

S. C., Georgetown.—The Real Estate Loan Co. of Georgetown is reported chartered; capital \$2000; H. L. Oliver, president; H. C. Smith, vice-president; H. L. Smith, secretary and treasurer.

S. C., McClellanville.—Reported chartered: Bank of McClellanville; capital \$15,000. Officers: R. M. Lofton, president; H. T. Morrison, vice-president; L. F. Powell, cashier.

S. C., Ruffin.—The Bank of Ruffin, capital \$15,000, is reported organized with the following directors: H. D. Padgett, Jr., president; J. W. Milroy, Jr., first vice-president; H. F. Breland, second vice-president; Robert Black, Thomas Black, W. W. Carter and E. H. Smith.

Tenn., Covington.—The Tipton County

Farmers' Union Bank, capital \$200,000, is reported chartered; incorporators, John T. Garner, W. V. McFadden, W. S. Mayes, W. L. Shelton, J. H. Tiplin, W. M. Gracey, Peter Fyfe, W. V. Bingle, J. R. Fallin, William Sanford, R. W. Sanford and W. A. Owen.

Tenn., Covington.—The Union Savings Bank, capital \$30,000, is reported incorporated by G. B. Gillespie, George D. Green, W. M. Simonton, George G. Harvey, Jr., S. C. Shelton, J. H. Flippin, W. L. Shelton, A. B. Cobb, R. W. Sanford and W. A. Owen.

Tex., Alvin.—Reported that about January 15 a new bank will be established with \$50,000 capital.

Tex., Bay City.—A building and loan association is reported organized with Mayor Sutherland as president.

Tex., Dallas.—Official: The Hamilton Investment Co. is incorporated by E. M. Reardon, M. N. Baker and Henry Hamilton. Business is to begin January 1.

Tex., Dallas.—The Merchants' National Bank is reported being organized; capital \$250,000; Ben B. Cain or L. L. Jester, Prætorian Bldg., Dallas; W. Frank Knox, H. W. Jester and M. W. Townsend.

Tex., Dallas.—The Dallas Guaranty Mortgage Co. of Dallas, capital \$50,000, is reported incorporated by H. P. Brown, John E. Pindexter of Cleburne and Adam H. Davidson of Dallas.

Tex., Ennis.—The First Guaranty State Bank & Trust Co. is to be chartered with \$50,000 capital; T. T. Clark is interested.

Tex., Greenville.—J. T. Young of Sulphur Springs is reported organizing a new trust company with \$1,000,000 capital.

Tex., Lake Creek.—Reported chartered: The Guaranty State Bank of Lake Creek; capital \$15,000; incorporators, J. T. Conway, J. W. Russell, W. R. Mills and others.

Tex., La Feria.—Official: The La Feria State Bank has begun business; capital \$10,000; incorporators, W. E. Stewart, P. B. Branch, B. H. Dunlap and T. J. Schnocrandy.

Tex., Moscow.—The Moscow State Bank will, it is reported, soon begin business with D. L. Jones, president; J. E. Goodwin, vice-president, and S. M. Beard, cashier.

Tex., Mt. Calm.—Reported chartered: First National Bank; capital \$50,000. Organizers: W. T. McGrew, president, and J. A. Rush, Jr., cashier. This bank succeeds the J. B. McDaniel Bank of Mt. Calm.

Tex., Navasota.—The Farmers' State Guaranty Bank will, it is reported, soon begin business with the following directors: Dr. J. H. Neal, president; J. T. Barry, vice-president; J. T. Evans, cashier; John McKay, William Gardner, G. C. Stoneham and J. F. Reohling. R. L. Renicke is assistant cashier.

Tex., Poth.—The First National Bank of Poth is reported being organized with \$25,000 capital; directors, Richard Voges, J. V. Marr, Wm. Ekel, J. H. Brown and E. L. Whitsett.

Va., Richmond.—Reported chartered: Broadway National Bank; capital \$200,000; correspondent, J. R. Tucker, 519 Mutual Bldg., Richmond, Va.; W. L. Walters, W. C. Davis, F. P. McConnell and J. F. Walsh.

Va., Richmond.—The Utilities Securities Corporation, capital \$1000 to \$1,500,000, is reported chartered. Incorporators: Ernest B. Flippin, president; H. H. Chalkley and John B. Marsh.

W. Va., Huntington.—The Guyandotte State Bank, capital \$25,000, is reported being organized. James Murphy and B. G. Dunkle of Huntington and T. C. Groff of Charleston are among those interested.

NEW SECURITIES.

Ala., Birmingham.—Official: Bids will be opened on December 31 for \$100,000 of 4½ per cent. 50-year bonds for buying site and building hospital; denomination \$1000; dated January 1, 1913. Bonds were voted August 12, 1912. Address Board of Revenue.

Ala., Guin.—Reported that \$5000 of an issue of \$6500 of 5 per cent. 10-year Guin school district building bonds have been purchased by the Marion County Banking Co. of Guin.

Fla., Bradentown.—Official: Bids will be received until 8 P. M. January 18 for \$75,000 of 5 per cent. 20-30-year municipal improvement bonds; dated February 1, 1913; denomination \$500. L. L. Hine is City Clerk. Further particulars will be found in the advertising columns.

Fla., Sarasota.—J. L. Houle, City Clerk, will, it is reported, receive bids until 8 P. M. December 20 for \$55,000 of 5 per cent. 20-year water, sewer, street-improvement and jail bonds.

Fla., Eustis.—W. F. Mantel, City Clerk, will, it is reported, receive bids until 8 P. M. December 18 for \$29,000 of 5 per cent. 20-year sewer bonds; dated January 1, 1913.

Fla., Clearwater.—Official: Voted December 3: \$370,000 of 5 per cent. Pinellas county road bonds; denomination \$1000.

Fla., Miami.—Official: Bids will be opened on January 7 for \$300,000 of 5 per cent. Dade county bonds for funding outstanding indebtedness and road construction; denomination \$100, \$500 and \$1000; dated: \$175,000 January 1, 1913; \$125,000 January 1, 1914; maturity 1933 and 1934, with 10-year option to take up. Bonds were voted September 17. Address Board of County Commissioners. Z. T. Merritt is clerk.

Fla., Tampa.—The First National Bank, Exchange National Bank, the Citizens' Bank & Trust Co. and the American National Bank have been awarded jointly at \$9000 premium the \$500,000 of 5 per cent. 20-50-year improvement bonds.

Fla., Mulberry.—Bids will be received by H. J. Koerner, City Clerk and Treasurer, until January 1 for \$20,000 of water-works bonds dated March 1, 1910; also for \$20,000 of sewerage and \$5000 of water-works bonds dated January 1, 1913. All the bonds bear 6 per cent, mature in 20 years and are of \$1000 denomination.

Fla., Winter Park.—Reported voted: \$10,000 of bonds for purchasing plant of the Orlando Water & Light Co.

Ga., Augusta.—Bids will be received until noon January 15 for \$250,000 of 4½ per cent. 30-year flood protection bonds; denomination \$1000; dated November 1, 1912. Address J. J. O'Connor, chairman finance committee.

Ga., Eatonton.—An election is to be held, it is reported, to vote on bonds for electric-light plant.

Ga., Lawrenceville.—The \$15,000 of 5 per cent. 20-year sewer bonds were purchased at par on November 21, it is reported, by J. B. McCrary Company of Atlanta.

Ga., Savannah.—The city will issue \$214,550 of refunding bonds to take the place of an equal amount of bonds issued by the Savannah, Albany & Gulf Railroad, maturing July 1, 1913, and for which the city is responsible.

Ga., Springfield.—Reported voted: \$10,000 of school-building bonds.

Ky., Albany.—Official: The question of holding an election about March, 1913, is under consideration.

Ky., Cadiz.—Official: The election to vote on \$150,000 of Trigg county road bonds will be held January 25. John C. Dabney is County Judge.

Ky., Lexington.—The \$50,000 of park and \$200,000 of sewerage bonds voted last month will probably be placed on the market some time in the spring. J. E. Cassidy is Mayor.

Ky., Pineville.—It is now stated that on March 4 Bell county will vote on \$500,000 of road bonds. A previous report gave the amount as \$355,000.

La., Alexandria.—January 15, it is reported, an election is to be held to vote on \$12,500 of 5 per cent. drainage bonds. Address Board of Commissioners of the Horseshoe Drainage District No. 1, S. W. Day, president.

La., Baton Rouge.—Reported that city proposes to issue \$10,000 or \$15,000 of school bonds.

La., Baton Rouge.—During the coming year Louisiana will issue and sell \$11,108,300 of 4 per cent. bonds to take up outstanding indebtedness of the State due January 1, 1914. Bonds will be in denomination of \$100, \$500 and \$1000. LeDoux E. Smith is State Treasurer.

La., Cameron.—Reported that early in January an election is to be held to vote on bonds of Cameron drainage district No. 2, Cameron parish.

La., Napoleonville.—An election is to be held, it is reported, to vote on bonds for power-house improvement.

Md., Annapolis.—Bids will be received until noon January 13 for \$500,000 of Series C and \$500,000 of Series D 4 per cent. 10-15-year State loan of 1912; dated December 1, 1912. Murray Vandiver is Treasurer of Maryland.

Md., Snow Hill.—Townsend Scott & Co., Baltimore, have purchased \$25,000 of 5 per cent. Worcester county road bonds. Press dispatches say the bonds sold at a premium of \$2072.75.

Miss., Blue Mountain.—The Bank of Blue Mountain is reported to have been awarded at 100.02 the \$5000 of 6 per cent. 20-year street-improvement bonds.

Miss., Columbia.—R. H. Jennings, State Treasurer, writes that the \$1,000,000 of State asylum bonds failed to receive the required

two-thirds majority in the election held November 5, and the bonds will therefore not be issued.

Miss., Collins.—Official: John Nuvene & Co., Chicago, Ill., purchased at \$425 premium the \$35,000 of 6 per cent. road bonds of Beat No. 21, Covington county; denomination \$1000; dated January 1, 1913; maturity 1923. J. R. Sumrall is chairman Board of County Supervisors.

Miss., Hattiesburg.—Official: Voted November 29: \$100,000 of 5 per cent. 25-year road bonds of supervisors' districts 1 and 3, Forrest county; denomination \$500; dated January 6, 1913; maturity 1938. Bids for same will be opened on January 6. Address J. P. Pace, president Board of Supervisors. Herbert Gillis is clerk.

Miss., Vicksburg.—Reported defeated: Bonds for purchase of water plant.

Mo., Maryville.—The Commerce Trust Co. of Kansas City, Mo., is reported to have purchased \$100,000 of water bonds; dated December 15, 1912; maturing serially from 1917 to 1932.

N. C., Asheville.—Baker, Watts & Co. and Nelson, Cook & Co. have been awarded jointly \$50,000 of 5 per cent. school bonds.

N. C., Clayton.—Reported that all unavoidable technicalities regarding the water and light bonds, which were sold some time ago, have been favorably ended and that the improvements will now be carried out.

N. C., Greensboro.—Reported that bids will be asked early in January for \$25,000 of street, \$15,000 of opera-house and \$10,000 of water and sewer bonds. Address City Commissioners.

N. C., Kinston.—W. D. La Coyne, Mayor, writes that no bond election has been authorized as yet. (See Manufacturers Record December 12.)

N. C., Lillington.—January 15, it is reported, an election is to be held to vote on \$15,000 of water-works and sewerage bonds.

N. C., Thomasville.—Official: City will sell at private sale \$15,000 of 5 per cent. 30-year water and sewerage bonds; denomination \$1000; dated December 1, 1912; maturity December 1, 1942. Address M. H. Stone, Clerk.

Okla., Atoka.—Reported voted: \$85,000 of courthouse bonds.

Okla., Collinsville.—An election is to be held in January, it is reported, to vote on \$40,000 of city hall, fire station and city water department mains. William Gresham is City Clerk.

Okla., Dewey.—Reported voted: \$10,000 of school bonds.

Okla., Foraker.—Official: All bids received December 11 for the \$25,000 of 6 per cent. 25-year bonds were rejected. New bids are to be asked. T. J. Mitchell is town clerk.

Okla., Ingersoll.—Official: Town has voted and contracted sale of its bonds, proceeds to be used for electric-lighting purposes. B. F. Blue is Clerk Town Board.

Okla., Okemah.—The question of issuing water bonds is reported under consideration.

Okla., Sapulpa.—Official: Bids will be received until 10 A. M. December 23 for \$100,000 of 5 per cent. 20-year park bonds. Address B. M. Van Orman.

Okla., Sapulpa.—Reported voted: \$75,000 of water and sewer bonds.

Tenn., Ashland City.—Official: Voted December 7: \$100,000 of 20-year Cheatham county road bonds; interest to be about 4 per cent.; denomination will be about \$1000. Address J. A. Williams, chairman.

Tenn., Park City, P. O. Knoxville.—Reported that city proposes to issue \$20,000 of municipal improvement bonds.

Tex., Anahuac.—Bids will be received until 10 A. M. December 27 by the board of directors of Trinity River Irrigation District, J. E. Broussard, president, for \$75,000 of irrigation bonds.

Tex., Athens.—J. J. Bradslaw, Clerk of Henderson County, writes that no bond election has been ordered. (See Manufacturers Record, December 12.)

Tex., Austin.—The State Board of Education is reported to have purchased \$76,200 in bonds for permanent school fund.

Tex., Brady.—Reported voted: \$42,250 of 8 per cent. water and light plant bonds.

Tenn., Bristol.—The First National Bank of Bristol is reported to have agreed to purchase the \$200,000 of Sullivan county road bonds, and they will be paid for as soon as ready and approved.

Tex., Austin.—The Attorney-General has approved the following securities: \$15,000 of

[For Additional Financial News, See Page 80.]

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 WM. INGLE, Vice-Pres. and Cashier.
 J. C. WANDS, Asst. Cashier.
 JOHN B. H. DUNN, Asst. Cashier.
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 Surplus and Profits - - - \$900,000
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 WM. G. TAYLOR, Treasurer.
 HARRY W. DAVIS, Secretary.
 W. W. PUSEY, 2d Title and Real Estate Officer.

H. B. Wilcox, President Blanchard Randall, V.-Pres.
 Wm. S. Hammond, Cashier
 Saml. W. Tschudi, A. Cash. R. E. Bolling, A. Cash.
The First National Bank
 17 South St., Baltimore, Md.
 Capital - - - - - \$1,000,000
 Surplus and Net Profits - - - 400,000
 Deposits - - - - - 6,500,000
 Especially well equipped to handle the business
 of Southern Banks, Corporations, and Indi-
 viduals and Manufacturers. We cordially in-
 vite correspondence and interviews.

The National Exchange Bank
 OF BALTIMORE, MD.
 Hopkins Place, German and Liberty Streets
 Capital, \$1,000,000
 July 15th, 1908, Surplus and Profits, \$671,631.60
 OFFICERS
 WALDO NEWCOMER, President.
 SUMMERFIELD BALDWIN, Vice-Pres.
 R. VINTON LANSDALE, Cashier.
 C. G. MORGAN, Asst. Cashier.
 Accounts of Mercantile, Firms, Corporations, Banks,
 Bankers and Individuals Invited.

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Fidelity & Deposit Co.
 OF MARYLAND
 Home Office, - - BALTIMORE, MD.
 Total Assets Dec. 31, 1911, \$8,133,000.57
 Pioneer Surety Co. of the South.
 Becomes Surety on bonds of every de-
 scription.

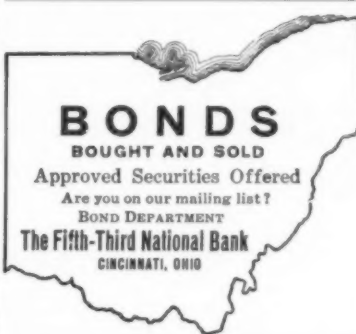
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Southern Steam
Railroad Securities
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 Specialists in Steam R. R. Securities
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CAPITAL AND SURPLUS - - - - - \$3,500,000
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RESOURCES - - - - - \$14,975,352.57

DEPOSITS DEC. 31, 1909.....\$ 8,041,252.59
 DEPOSITS DEC. 31, 1910..... 8,809,843.00
 DEPOSITS DEC. 31, 1911..... 10,344,570.57

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SURPLUS - \$3,000,000.00

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5 per cent. 20-40-year bonds of Longview independent school district; \$1500 of 5 per cent. 15-year bonds of Wichita county common school district No. 8; \$30,000 of Abilene street-improvement bonds; \$4439.35 of 5 per cent. 10-year bonds of Burleson overflow district No. 2.

Tex., Calvert.—Reported that bids are being received for \$25,000 of 5 per cent. 10-50-year sewer bonds; denomination \$500. William McIntosh is Mayor.

Tex., Dallas.—Spitzer, Rorick & Co., Toledo, O., are reported to have offered to purchase at par and accrued interest the remaining \$325,000 of the \$725,000 of 4½ per cent. improvement bonds offered December 4. The Dallas Trust and Savings Bank is also reported to have offered to purchase the bonds at par, accrued interest and premium of \$50.

Tex., Devine.—Official: Southerland & Co., Kansas City, purchased at 99¼ the \$40,000 of 5 per cent. 40-year Devine precinct highway improvement bonds voted November 5; denomination \$1000. J. W. Fullerton is Mayor.

Tex., Dublin.—Reported that bids will be received by J. H. Lacharn, president board of trustees, until December 23 for \$44,000 of 5 per cent. 10-50-year independent school district construction bonds; denomination \$1000; dated January 1, 1912.

Tex., Falfurrias.—December 21, it is reported, an election is to be held in Brooks county to vote on \$80,000 of courthouse and \$15,000 of road bonds.

Tex., Greenville.—Reported voted: \$75,000 of street-paving bonds.

Tex., Groesbeck.—E. B. Blanton is reported to have purchased \$150,000 of 5 per cent. bonds of Limestone county road district No. 4.

Tex., Justin.—Reported voted: \$15,000 of school-building bonds.

Tex., Killean.—Official: The election to vote on water-works bonds will be held December 23.

Tex., Marlin.—Reported voted: \$25,000 of water-works bonds.

Tex., Marlin.—Reported voted: \$25,000 of water-works bonds.

Tex., Montgomery.—Reported voted: \$10,000 of water-works bonds.

Tex., Orange.—January 7, it is reported, an election is to be held in Orange county to vote on \$30,000 of drainage bonds.

Tex., Palacios.—A local bank is said to have purchased \$25,000 of 5½ per cent. water-works bonds recently voted. D. Ruthven is Mayor.

Tex., Palacios.—A Chicago firm has contracted for the \$100,000 of 5½ per cent. road bonds of District No. 10, Matagorda county. H. M. Sanders is County Commissioner.

Tex., Port Lavaca.—On December 31 an election is to be held in Calhoun county to vote on \$135,000 of 5 per cent. 40-year road bonds. F. M. Dudgeon is County Judge.

Tex., San Benito.—The W. R. Compton Bond & Mortgage Co., St. Louis, have, it is reported, purchased San Benito drainage district No. 3, Cameron county, bonds.

Tex., Sweetwater.—Reported that \$100,000 of Nolan county road bonds were recently voted.

Tex., Yoakum.—The election to vote on \$100,000 of Yoakum precinct, Dewitt county, road-improvement bonds will, it is reported, be held February 5.

Va., Ashland.—Reported voted: \$50,000 for purchase of Ashland Gas, Sewerage & Water Co.'s plant or to construct a municipal plant.

Va., Newport News.—Official: Bids were received until noon December 18 for \$250,000 of 4½ per cent. 40-year bonds for construction of small boat harbor, wharf and dock; denomination \$1000; dated February 1, 1913; bonds were voted July 25, 1912. Address Finance Committee, M. H. Lash, chairman, Floyd A. Hudgins is City Clerk.

Va., Portsmouth.—Mayer, Deppe & Walter and Well, Roth & Co. of Cincinnati are reported to have been awarded \$275,000 of 4½ per cent. 30-year street-improvement bonds.

Va., Spottsylvania.—Official: February 4 an election is to be held in Spottsylvania county to vote on \$40,000 of Livingston district and \$33,000 of Berkley district 5 per cent. 30-year permanent road-improvement

bonds; denomination, \$500 and \$1000. Address Board of Supervisors.

W. Va., Bluefield.—Reported that an election is to be held to vote on \$150,000 of public improvement bonds.

W. Va., Welch.—Official: Woodin, McNear & Moore, Chicago, have been awarded at \$151,250 (purchaser to furnish bonds) the \$150,000 of 6 per cent. 20-30-year school district building bonds; denomination \$1000; dated January 1, 1913. Bonds were voted January 1, 1913. F. C. Cook is district secretary.

FINANCIAL NOTES.

The Exchange Bank of Savannah, Ga., is now doing business in its new building on Broughton St.

The Bank of Zalma at Zalma, Mo., is reported to have increased its capital from \$12,000 to \$17,000.

The Realty Trust Co., Birmingham, Ala., will, it is stated, increase its capital from \$350,000 to \$500,000.

The Guaranty State Bank of Tyler, Tex., will, it is reported, increase its capital from \$100,000 to \$200,000.

The Great Southern Fire Insurance Co., Louisville, Ky., has, it is reported, increased its capital from \$100,000 to \$500,000.

The Bryson City Bank of Bryson City, N. C., is reported, to have increased its capital to \$35,000. D. K. Collins is president.

The Fidelity Trust & Loan Co. of Wheeling has been authorized, it is reported, to increase its capital from \$100,000 to \$200,000.

The conversion of the Exchange Bank of Rome, Ga., into the Exchange National Bank of Rome is approved; capital \$150,000.

The conversion of the Deposit Bank of Vaneburg, Ky., into the First National Bank of Vaneburg is reported approved; capital \$25,000.

The Commercial Savings Bank of Charleston, S. C., proposes, it is stated, to increase its capital from \$100,000 to \$200,000. T. T. Hyde is president.

The Great Western Life Insurance Co. of Kansas City and the International Life Insurance Co. of St. Louis are reported to have merged under the name of the latter institution.

The Bessemer State Bank, Bessemer, Ala., is reported being reorganized with an increase in capital of from \$35,000 to \$100,000. George E. Rutledge will, it is stated, succeed W. H. Hollingsworth as president.

A condensed statement of Alabama banks, exclusive of national institutions, at close of business October 15, 1912, shows total resources \$68,731,091; loans and discounts, \$48,587,376; capital stock, \$11,871,975; surplus and undivided profits, \$6,590,692.

Spencer Trask & Co. of New York are reported to have purchased \$700,000 of an issue of \$1,000,000 of first 5 per cent. 25-year sinking fund bonds of the Carolina Terminal Co. of Charleston, S. C. The property is leased by the Clyde Steamship Co.

At the annual meeting of the Tennessee Fire Insurance Agents' Association, held at Chattanooga, Tenn., December 10, the following officers were elected for the ensuing year: J. B. McKee, Nashville, president; Charles B. H. Loventhal, Nashville, secretary-treasurer; L. G. Mason, Memphis, N. H. Grady, Chattanooga, and R. P. Johnson, Knoxville, vice-presidents.

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This is a municipal issue, approved by the State Board of Engineers, carries 5 per cent. interest and runs from 5 to 35 years. It is under the new law which has been sustained by the Supreme Court.

It is secured by 4239 acres of the richest sugar and corn land in the world, which is entirely surrounded by the finest sugar plantations and farms in America.

With proper drainage these lands will produce from 40 to 60 tons of sugar to the acre, worth on the farm from \$3.50 to \$4 per ton.

Leases are in demand on these lands at 50 cents per ton a year.

The Louisiana drainage law is an improvement on any other law in the United States. A copy will be sent on request.

As we do not need this money only as work progresses, we can sell the issue to be paid \$10,000 per month. Maps, specifications of work and description of the property promptly furnished.

While we are carrying the work right along, we have no contract out for it, and we are ready to contract it to the responsible party who will take bonds in payment.

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